ASBPE Magazine of the Year 2006

The 'engagement managers' for Microsoft's SAM program are paid partly based on the revenue they recover.

Fires at two Iron Mountain storage facilities hasten some users' efforts to create electronic archives.

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JULY 31, 2006 ■ VOL. 40 ■ NO. 31 ■ $5/COPY

MAKING A Federal Case

Fighting cybercrime has become a high priority for the FBI.

The threats keep changing, but federal agents say they can help.

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Users Mix Open-source, Windows for Server Apps

Pragmatic approach trumps Linux

INSIDE
Oracle, Sun execs discuss their companies' open-source strategies.
Pages 14, 16

BY ERIC LAI

When Bob Hecht joined Informa PLC as its vice president of content strategy, he dreamed of rebuilding the London-based technical publishing firm's IT infrastructure using Linux and other open-source technologies.

But with Windows entrenched throughout the company, Hecht settled on a more pragmatic hybrid approach: an open-source content management server from Alfresco

Open-source, page 14

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Banks Face Web Security Deadline

Many unprepared for guidelines on authenticating online users

BY JAIKUMAR VIJAYAN

For some bank IT managers, last fall's release of federal guidelines on validating the identities of online users helped catalyze ongoing efforts to adopt so-called strong authentication measures.

But a majority of U.S. banks appear unprepared to meet the Dec. 31 deadline for complying with the guidelines, several analysts said last week. They placed much of the blame for the current lack of preparedness on the fact that the guidelines aren't mandatory and don't specify what form of strong authentication banks should implement.

> "It validated what we were doing, and it gave us a deadline."
>
> PRESTON WOODS, CISO, ZIONS BANCORPORATION, ON THE FFIEC'S FFIEC AUTHENTICATION GUIDELINES

"Most banks haven't done much with [the guidelines] because there is still some confusion as to what needs to be done," said George Tubin, an analyst at TowerGroup in Needham, Mass.

That isn't the case at Zions Bancorporation in Salt Lake City. Preston Woods, the company's chief information security officer, said the release of the guidelines last October by the Federal Financial Institutions Examination Council gave a push to a strong authentication initiative that Zions had already started. "It validated what we were doing, and

Banks, page 41

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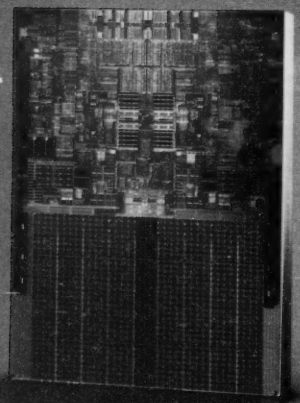

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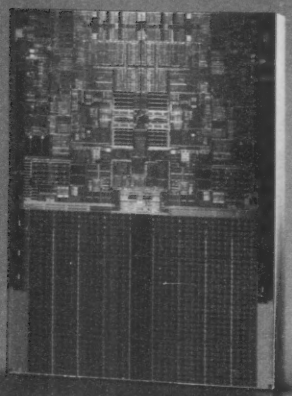

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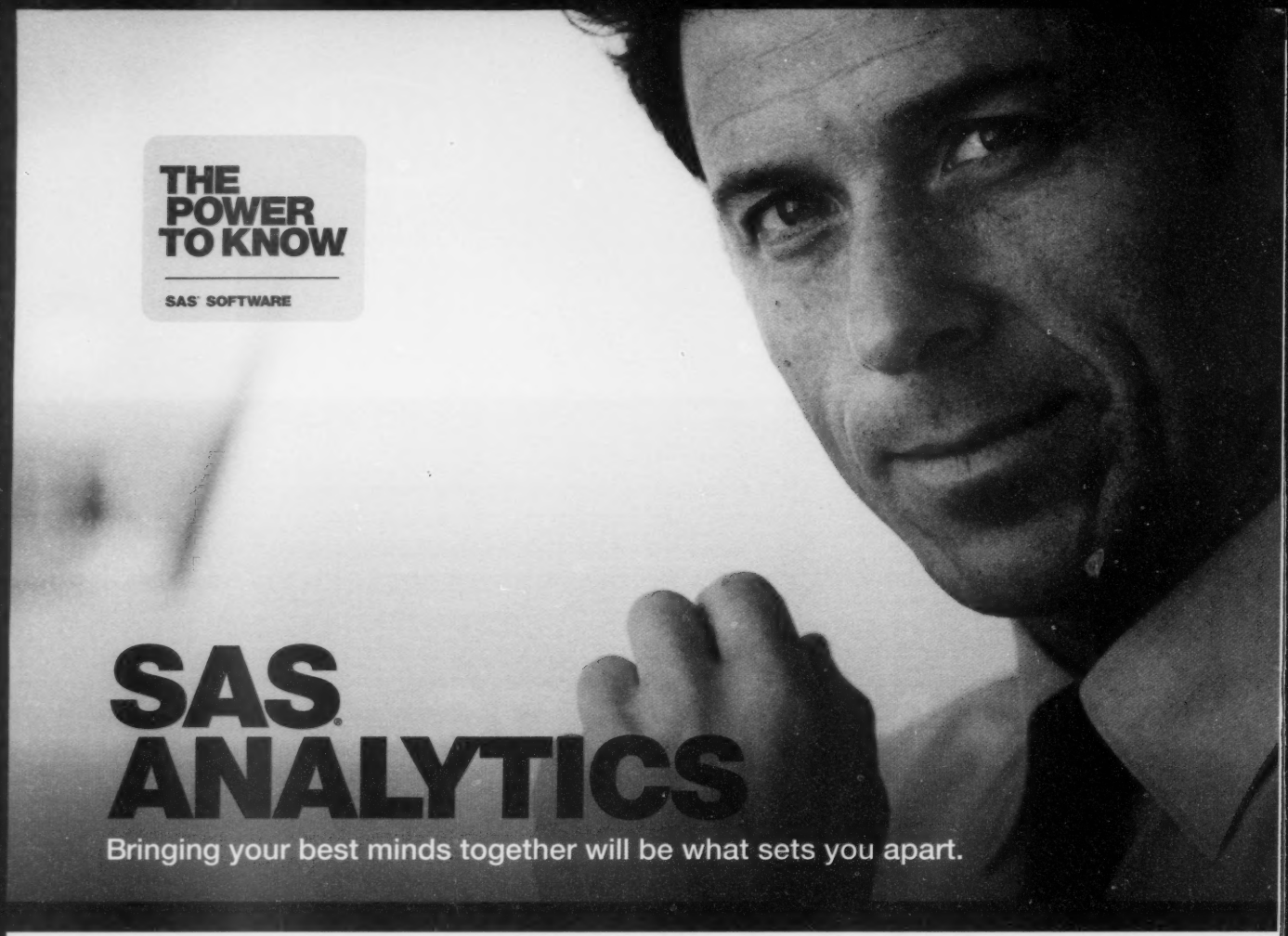

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AT DEADLINE

Glitch Delays Northwest Flights

A glitch in the computer system that connects the Worldspan Technologies Inc. global distribution system and some Northwest Airlines Inc. airport systems delayed more than 200 flights across the U.S. last Tuesday. The company said a small number of flights were canceled as a result. The cause of the problem had not been found by midweek, when the system returned to normal.

Intel Slashes Some Desktop CPU Prices

Intel Corp. has slashed prices on some desktop PC microprocessors by more than half, raising the stakes in its battle with Advanced Micro Devices Inc., which had cut prices earlier. Intel slashed the cost of its Pentium D processor, the 960, by 40% to $316, according to a price list on its Web site late last week. Intel also cut prices by up to 58% on some of its Pentium 4 processors that support hyper-threading technology.

Missing Government Laptop Is Found

A laptop computer containing the personal data of more than half a million New York state workers has been found. The laptop, which disappeared on May 9, belonged to the New York Special Funds Conservation Committee. It was last seen in the offices of CS Stars LLC. The third-party data management company confirmed that the laptop was found but declined further comment.

Microsoft Outlines Plan for Whale Tools

Microsoft Corp. has closed its acquisition of virtual private network vendor Whale Communications Ltd. and outlined its plan to integrate Whale's products into its security portfolio. In the short term, Microsoft will sell existing Whale products at discounted prices. By late 2007, the Whale technology will be integrated in ISA Server, Microsoft's remote-access security product.

OpenView Users Laud HP's Mercury Purchase

Say deal will broaden HP's offerings and improve its ability to compete

BY MATT HAMBLEN

HEWLETT-PACKARD CO.'S $4.5 billion deal to buy Mercury Interactive Corp. won praise last week from users of HP's OpenView software as a smart move that will give the company a broad combination of systems and application management tools.

The buyout will add a variety of potentially useful application and performance management products to the OpenView portfolio, several HP users said. Buying Mercury should also boost HP's ability to compete with IBM, BMC Software Inc. and CA Inc. in the management tools market, according to the HP users and some industry analysts.

Mercury's products will complement or even enhance the OpenView tools for ensuring system performance and availability and managing internal processes based on the IT Infrastructure Library specifications, said Karen Semonson, information systems operational services manager at Foremost Farms USA Cooperative in Baraboo, Wis.

For example, she wants to use Mercury's IT Governance Center and IT Availability Center tools to broaden the IT service management road map at Foremost Farms. Those products should add capabilities that HP's OpenView Service Desk and OpenView Operations tools don't provide now, said Semonson, who is co-leader of the Wisconsin User Group. Her group is a local chapter of OpenView Forum International, an independent organization with more than 6,000 members.

Joe Gersch, the OVFI's treasurer, said HP users had been discussing the prospect of a Mercury acquisition for months. "As I've talked to OV users, they say Mercury has a very good suite of products, and some actually said, 'I wish Mercury were a part of OV,'" noted Gersch, who is vice president of engineering at Secure64 Software Corp. in Greenwood Village, Colo.

'Strong Complement'

Gersch added that he thinks Mercury's tools are, in general, "a pretty strong complement, with just a little bit of overlap" with OpenView.

Mike Aubert, co-leader of OVFI's Colorado chapter, said HP already has some application and performance management tools that provide the same kind of functionality offered by Mercury. "But I'm sure HP can incorporate the [new] tools," added Aubert, who declined to identify the company he works for.

HP CEO Mark Hurd said during a teleconference that the purchase of Mountain View, Calif.-based Mercury will double his company's software revenue to more than $2 billion annually and is designed to make HP "an end-to-end leader in IT management."

Rick Langsford, an OVFI member and former leader of its San Francisco Bay area chapter, said that after Hurd took over at HP last year, some users were worried that he would de-emphasize the OpenView business.

"But it turns out that there's been a software emphasis, and in fact, they are being very aggressive" with acquisitions, said Langsford. He is director of research and development at Pepperweed Consulting LLC, an Indianapolis-based company that does OpenView systems integration work.

Haw Wu, an analyst at American Technology Research Inc. in Greenwich, Conn., said the synergies between Mercury's products and OpenView "are not as clear" as HP implied. More than 60% of Mercury's revenue comes from software development and testing tools, with about 30% from application management and just 10% from IT governance and resource management, Wu said.

A drop-off in the value of Mercury's stock, which followed the departures of three top executives last year over a stock-option scandal, "produced an opportunity that HP pounced upon," said Zeus Kerravala, an analyst at Yankee Group Research Inc. in Boston.

Nonetheless, Kerravala described the HP and Mercury product sets as a good match. "HP is good at systems and network management but weak in anything application-oriented," he said.

JUST THE FACTS

The Mercury Deal

- HP will pay $52 per share in cash for Mercury's stock, for a total value of about $4.5 billion.
- The acquisition is scheduled to be completed during this year's fourth quarter.
- Mercury will become part of HP's software business.
- Tony Zingale, Mercury's CEO, will work at HP on integration of the companies after the deal closes.

Cisco to Release New Tools for Managing Complex Networks

BY MATT HAMBLEN

Cisco Systems Inc. is set to announce today a group of products and services for configuration management, marking its second foray into the business of providing management tools for complex networks.

The new Proactive Automation of Change Execution tools can be used to change usernames and passwords, manage unplanned device configuration changes, provide reports on compliance with industry regulations, and analyze network security and resiliency, according to Karen Sage, director of PACE product marketing.

Michel Davidoff, senior technology infrastructure architect at California State University, said he is rolling out PACE products to 23 CSU campuses with more than 400,000 network nodes to help manage operational procedures.

Davidoff said he anticipates that the PACE tools will reduce network management costs and time while increasing user productivity.

The PACE line includes two new software tools and revisions of two existing tools, Sage said. The new tools are CiscoWorks Network Compliance Manager 1.0, priced from $33,995 for up to 100 managed network nodes, and Cisco Configuration Assurance Solution 1.1, starting at $201,600. Both are available now.

Cisco unveiled its first systems management products — the Network Application Performance Analysis family — last December.

Looking forward, the company has no plans to provide a configuration management database, Sage said. Instead, Cisco will leverage CMDBs from other vendors, such as BMC Software Inc., IBM's Tivoli unit, CA Inc. and Hewlett-Packard Co.

Cisco also plans to work with a consortium of vendors, including IBM, BMC, HP and CA, that joined forces earlier this year to create a CMDB standard, Sage said. "I think you'll see a lot of openness" between Cisco and other vendors, she added.

Fires Prompt Users to Hasten Hunt for Backup Alternatives

Blazes hit Iron Mountain facilities in London, Ottawa; investigations ensue

BY SHARON FISHER

Fires at two Iron Mountain Inc. facilities this month could speed corporate efforts to use electronic archiving systems that would obviate the need to store corporate records in off-site warehouses, users said last week.

On July 12, a fire gutted Iron Mountain's 126,000-square-foot storage facility in London, destroying all of the records stored there, according to Melissa Mahoney, director of corporate communications at the Boston-based company. An investigation is under way to determine the cause of the blaze, she said.

A day earlier, fire damaged a 65,000-square-foot Iron Mountain facility in Ottawa. Although the investigation isn't complete, the fire was likely caused by roofing contractors performing repairs at the building, Mahoney said. About 3% of the files in storage there were damaged, mostly by water, and less than half a percent were damaged beyond remediation, she said.

Clients Have Questions

The fires prompted Rent-A-Center Inc. to step up plans to implement electronic achiving, said K.C. Condit, director of technical services at the Plano, Texas-based chain of 3,000 consumer-goods rental stores. In the meantime, Condit is talking to his company's Iron Mountain representative about fire suppression in the warehouse used to store Rent-A-Center files.

Jeff Roberts, IT director at London-based Norton Rose, which lost some 7,000 files stored in the London facility, said the law firm was already setting up electronic archiving systems prior to the fire.

Norton Rose is using Clariion and Centera storage systems from EMC Corp. and document management software from Interwoven Inc. to create an archival system that is projected to go live in a couple of months, Roberts said. At that point, Norton Rose may no longer need to keep any records on paper, he said.

Neal Hennegan, director of technology at Gilsbar Inc. in Covington, La., has been looking for alternatives to Iron Mountain since Hurricane Katrina struck last year. Gilsbar files stored in an Iron Mountain facility in Metairie, La., were not sent inland to Baton Rouge prior to Katrina as Hennegan requested, leaving them locked in an inaccessible building for a week after the storm.

Hennegan said he hasn't yet found an alternative that is as cost-effective as Iron Mountain or that can deliver media on demand in less than 24 hours. However, "the days of physical remote storage are clearly numbered," he noted. "If we were a smaller shop, we'd be doing all our backups over the wire now."

Fires such as those that hit Iron Mountain's facilities are not unheard of, said Larry Medina, a Danville, Calif.-based records management professional at a company he asked not to be named. Medina, who is chairman of the Association of Records Managers and Administrators, cited three suspicious fires in March 1997 in an Iron Mountain facility in South Brunswick, N.J.

During Iron Mountain's earnings conference call last week, Chairman and CEO C. Richard Reese said that in response to the Ottawa fire, the company will take additional precautions during building repairs.

John Kenny Jr., executive vice president and chief financial officer, noted that Iron Mountain expects to exhaust a $750,000 insurance deductible it has for each incident. However, the company is not changing its financial guidance for the rest of the year, executives said. ▸

STEVE PISTON/NEWHAM RECORDER

A fire at Iron Mountain's London facility destroyed all the records stored there.

Search for E-health Official Likely to Drag On

BY HEATHER HAVENSTEIN

The search for a new point person to head the national effort to foster the use of electronic health records is being stymied on several fronts, according to health care executives.

Several users noted last week that the three-month search has been hurt because of its timing — coming near the end of the Bush administration — and the reluctance of some candidates to abandon their own fledgling IT projects.

A U.S. Department of Health and Human Services spokeswoman said last week that the search to replace David Brailer — who resigned as national coordinator for health information on April 20 — is still under way but added that she has "no idea" of its status. The search is being led by President Bush and HHS Secretary Mike Leavitt.

J. David Liss, vice president of government relations and strategic initiatives at New-York-Presbyterian Healthcare System, predicted continued delays because of difficulties finding capable candidates "in the closing days of an administration and in a time of budget shortfalls."

Liss suggested that the delay likely won't affect HHS and private-sector efforts to promote the use of electronic health records and create an infrastructure to exchange those records. "That horse is out of the barn," Liss said. "It may run fast or walk slow, but it will cross the finish line."

J. Marc Overhage, CEO and president of Indianapolis-based Indiana Health Information Exchange Inc., added that some people may be reluctant to move to Washington for a presidential appointment that will likely end at the close of the current term. But he also expects that work on the effort will continue unhampered for the next six to 12 months without a new coordinator.

"I really believe a lot of this work takes time to complete. We may actually come out ahead by having time for processes to work through and for care-delivery organizations to learn more," Overhage said.

Mark Frisse, a professor of biomedical informatics at Vanderbilt University in Nashville, noted that the search may be hampered because qualified candidates are immersed in their own health IT projects.

"I and most of my colleagues are quite engrossed in functioning, real-world projects where we are only beginning to see the impact," said Frisse, who is developing a regional health information organization in Tennessee. "Given the relative slow but positive pace of the federal government, the enormous activity in the states and the local opportunities for immediate change of national significance, one should not be surprised if anyone involved in such local initiatives is torn between moving forward locally and federal service."

Nonetheless, he added, there are pressing issues that require a coordinator, including communicating a vision that fosters public trust in health IT, coordinating efforts among federal agencies to adopt health IT and managing contracts awarded by HHS for health IT prototypes.

Scott Tiazkun, an analyst at IDC in Framingham, Mass., said that a new national coordinator would likely continue on the job under a new president. "When Bush leaves office, I assume that the person who has that job will not leave," he said. "This is one of those positions that people do not take a political stance on." Rather, the president will tap "someone who is competent and has a vision." ▸

> We may actually come out ahead by having time for . . . organizations to learn more.
>
> J. MARK OVERHAGE, CEO AND PRESIDENT, INDIANA HEALTH INFORMATION EXCHANGE

BRIEFS

AMD to Buy Graphics Chip Firm for $5.4B

Advanced Micro Devices Inc. has agreed to buy Canadian graphics chip maker ATI Technologies Inc. for about $5.4 billion in cash and stock. AMD said the merger will speed its plan to offer integrated products for the mobile computing and consumer electronics markets. The deal is subject to shareholder and regulatory approvals. The companies had combined revenue of $7.3 billion for the fiscal year that ended May 31.

Microsoft Ships New Exchange Beta

Microsoft Corp. has released the second beta version of Exchange Server 2007 and the beta for an accompanying antivirus product, Forefront Security for Exchange. The new beta of Exchange Server 2007 is more reliable than the previous version and adds new management and mobility features, Microsoft said. The final version of the product will be released late this year or early in 2007.

Sun Posts $301M Fourth-Quarter Loss

Sun Microsystems Inc. posted a loss of $301 million for its fourth quarter, which ended June 30. Sun blamed the loss on restructuring costs from a tumultuous period of layoffs and plant closings.

SUN BY THE NUMBERS

	REVENUE	PROFIT (LOSS)
Q4 '06	$3.8B	($301M)
Q4 '05	$3B	$50M

SAP Updates mySAP Upgrade Application

SAP AG is updating SAP Solution Manager, a software maintenance application designed to help administrators manage upgrades, patches and other changes to its ERP software. The company said that the software will become the sole method for receiving maintenance updates for mySAP Business Suite 2005 applications starting in April 2007. SAP Solution Manager 4.0 will ship in January 2007.

ON THE MARK

HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY BUZZ BY MARK HALL

MATTHEW FAULKNER

Let Business Rules Direct Your . . .

. . . internal SOA projects. With IT departments mesmerized by the potential productivity paybacks of service-oriented architectures (SOA), it isn't illogical for them to consider that their component-based J2EE and .Net apps are ideal candidates to be recast as Web services. But a couple of SOA vendors caution that a wiser path might be to first look at applications laden with business rules — no matter what language they're written in. Many business rules and policies change constantly, and writing them as Web services means you can easily alter them because they're no longer intertwined with other parts of an application's code. Pierre Haren, CEO of ILog Inc. in Mountain View, Calif., estimates that 20% to 35% of a big company's application portfolio "can be traced back to a policy that can be written as a business rule." Haren says you should look at an application's rate of change. If it's high, put the app on your list to migrate to an SOA.

Identify apps with a high change rate, says HAREN.

Annrai O'Toole, CEO of Cape Clear Software Inc. in Waltham, Mass., says you need to define your Web services at the business-rule level "because that's what the business gets." His advice: "Start at the business policy and work back to the technology."

Chargeback equation changes as . . .

. . . Linux gets embedded in IT equipment. Naren Nachiappan, a vice president and general manager at Wind River Systems Inc. in Alameda, Calif., envisions a time when CIOs can precisely invoice business users for their consumption of corporate IT resources, from the use of CPU cycles by individual workers to how much network bandwidth a remote sales office chews up. Nachiappan says he's optimistic about that prospect because developers who embed software in IT equipment are shifting from proprietary technologies to Linux. Wind River is known best for its VxWorks real-time operating system, which is used in one-of-a-kind devices such as the Mars rovers Spirit and Opportunity. But it's now focusing most of its attention on an internal Linux distribution and software development tools that can be used for a wider range of projects.

47% Developers polled online who have used Linux as an embedded OS, says Linuxdevices.com.

The upside for CIOs, Nachiappan says, is that appliances, routers, switches and other IT devices will be able to leverage a common operating system to layer on sophisticated management and usage-metering services. "A device is no longer a black box doing embedded things," he says.

Generic software agent improves . . .

. . . deployment time for systems management tools. Bala Murugan, chief architect at eG Innovations Pte. in Singapore, says systems management software that depends on specialized agents for every operating system becomes time-consuming and expensive to deploy. That's why he designed his company's eG Enterprise monitoring software to use a generic agent.

400k Number of metrics gathered by its agent, says eG Innovations.

Murugan says the agent gathers hundreds of thousands of metrics and uses a secure HTTP link to communicate with eG's management console. Luckily, after the software generates an automatic baseline of how your systems are running, the agent only reports exceptions to the eG Manager console, Murugan says. In Q4, the company will add capacity planning tools to help you plan system upgrades based on current end-user activity or what-if scenarios.

Mobile devices may get new power . . .

. . . and performance capabilities. Gerry Sollner, senior executive vice president at Woburn, Mass.-based Kenet Inc., says makers of handhelds and other "power-constrained systems" could reap systems-level power savings of up to 10% when they use his company's new analog-to-digital converter (ADC) chips. The company achieves the power savings by moving electrons more efficiently as they transition from analog to digital processes, Sollner says. The ADCs also pile on the performance, Kenet claims. CEO Phillip LoPresti says handheld designers will be able to choose between offering end users more battery life and giving them power-hungry features that weren't previously possible. Kenet plans to begin shipping the chips in Q4 and expects handhelds equipped with them to be ready by the 2007 holidays.

Data center audit is worth . . .

. . . the effort. John Bostick, CEO of dbaDirect Inc. in Florence, Ky., says the database management services provider is undergoing the third annual Statement on Auditing Standards 70 Type II audit of its data center's IT processes. SAS 70 "is as disruptive as a financial audit," Bostick says. But prior to the first audit, "our documentation was lumpy," he notes. Now it's proof of the data center's security and efficiency, Bostick claims. He says that data center process documentation "should become part of your culture." ▸

Improved documentation makes up for the hassle, says BOSTICK.

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Microsoft Faces More Questions On Asset Management Program

BY CAROL SLIWA

THE INITIAL e-mail about Microsoft Corp.'s Software Asset Management program was so helpful, even compassionate-sounding, that the CIO at a midsize distribution company wasn't prepared for the outburst that followed.

A woman who identified herself as "a SAM adviser for Microsoft" explained in an introductory letter, sent in late June, that she was working on a national initiative the software vendor created because it understands the complexity of managing valuable IT assets. Microsoft had identified the distributor as having possible challenges, just as the SAM team had seen with other "strategic" customers, she wrote. The woman, who worked for a third-party firm called SEI Information Technology Inc., suggested that a 30-minute call would be in the distributor's best interest.

SPECIAL REPORT

This is the second in a series of stories about Microsoft's Software Asset Management program. The first installment appeared in our July 10 issue.

But any hint that the SAM team may have revised the heavy-handed pitching tactics that caused some customers to complain to *Computerworld* during the past two months soon evaporated. The CIO, who asked that he not be identified for fear of retribution, said the SAM adviser turned "very irate" and threatened to call the distributor's CEO when he declined her offer.

"She even was demanding immediate information over the phone on how many licenses we had from certain Microsoft applications," the CIO said. "It's a sneaky tactic, trying to come in under the mask of offering a service to help manage our licenses, when all along it is an audit."

He wasn't the only IT manager left with that impression. Neither was he the first to think that his company had been approached by a sales representative who was working on commission.

The CIO at a Portland, Ore.-based division of a global logistics company who asked not to be named said he asked a Microsoft SAM engagement manager about her compensation package during an introductory phone call last week, when her persistence intensified even after he explained that his operation doesn't have time to participate due to more pressing projects. The CIO said she told him it was a confidential matter.

He added that the engagement manager repeatedly spoke of escalating the matter to an officer of the logistics company while insisting that she was merely looking for his division to be in compliance with its software licenses — which it already is, he said.

Revenue Recovery

According to Juan Fernando Rivera, worldwide director of Microsoft's SAM program, part of the compensation received by the engagement managers is based on the revenue they recover for unpaid licenses on software that customers have been using.

"It's not like a police officer having a quota of tickets that they have to write in a month," Rivera said this month. But, he added, "we set a goal, so to speak, of the number of engagements that we think could potentially be done in any particular marketplace."

Rivera said workers from SEI and other third parties that Microsoft hires to represent it under the SAM program are paid an hourly wage. He added that the workers also might receive incentives, but he had no information on that subject. Microsoft's regional subsidiaries are responsible for determining the compensation packages, Rivera said.

The company declined to make representatives from the subsidiaries available, saying that all SAM-related questions should be directed to Rivera.

Discussions of compensation and quotas don't sit well with Milton Bliss, CIO at Sunwest Management Inc. in Salem, Ore., especially after listening to Microsoft insist that a SAM engagement's purpose is neither sales nor an audit.

"I cannot possibly understand how Microsoft could argue that it's not an audit, when they are commissioning the people performing the work based upon how much money they bring in," Bliss said. "I am annoyed by their dancing around the words."

Rivera said he recognizes that many customers feel threatened when the SAM team approaches them. But, he added, the SAM approach was designed to be a "middle point" on the pendulum swing between doing "absolutely nothing" to ensure that companies are properly licensed to "beating customers over the head with a hammer" by doing formal audits. Rivera said his title changed from director of worldwide license compliance to head of the SAM program when it was launched in the U.S. a year ago, reflecting the company's changed approach.

SAM engagement managers are measured partly on customer satisfaction, and the SAM group is on notice from CEO Steve Ballmer that Microsoft will pull the plug on the program if customer satisfaction plummets, Rivera said.

Rivera noted that his group is working on both internal and external education programs, and that it conducts training sessions for SAM engagement managers. But its influence extends only so far. He said that Microsoft's regional subsidiaries ultimately have autonomy over the actual scripts used with customers.

And in the U.S., discretion on the wording of e-mails is left to individual engagement managers, according to Jackie Carriker, director of the SAM program for Microsoft's U.S. subsidiary. "We provide our SAM engagement managers with guidelines on the messages and positioning we want to communicate to our customers," Carriker wrote in an e-mail response to a question. "But we are not prescriptive on the tone or style of individual communication pieces."

DIFFERENT APPROACHES

From an e-mail that a Microsoft SAM consultant sent to Sunwest Management Inc. in March:

"Our research team was looking through the licensing purchase histories for your organization and noticed a few things that cause concern. **These concerns generally stem from potential licensing irregularities** that may put your organization at risk.

From an e-mail that the same SAM consultant sent to another company this month:

"Microsoft started the SAM program a little over a year ago. We were formed as a result of the overwhelming feedback received regarding our licensing program. It's a very complex program that has created a lot of confusion among the IT world. As a result of these complexities, **we have found that a number of our customers may be inadvertently licensed improperly.**

Microsoft Eschews Audits – But Reserves the Right

COMPANIES that agree to participate in Microsoft's Software Asset Management program can do so without fear of the vendor invoking the dreaded audit clause in their volume license agreements, according to Juan Fernando Rivera, Microsoft's worldwide director of SAM.

But there are no such guarantees for companies that decline to take part, Rivera said. And his position that Microsoft will refrain from auditing SAM participants may not be ironclad, based on the comments of Mike Oldham, general manager of the company's worldwide licensing and pricing organization.

"While we are not invoking the audit clauses in customers' contracts when we engage them on a SAM review, we still reserve the right to audit customers when the situation calls for it to protect our [intellectual property]," Oldham said.

Microsoft stopped doing audits three years ago, Rivera claimed. "In terms of revenue, it was a great approach," he said. But customer satisfaction "was way, way down" as a result of the audits, he added.

Rivera said Microsoft now hopes that customers who participate in the "voluntary" SAM program will "start or improve their own asset management program." But, he added, users that aren't proactive about improving their SAM processes "could potentially fall out of compliance in time and, as such, could be exposed to being audited."

According to Rivera, the responsibility for invoking audits rests solely with Microsoft's worldwide license compliance group, which includes his SAM team. He said, though, that other divisions can instigate audits if they see the need to go that level.

Customers who take up the company's offer for a free "SAM review" and education program won't be subjected to audit bills or extra charges for software, no matter how much they're out of compliance with licenses, Rivera said.

– CAROL SLIWA

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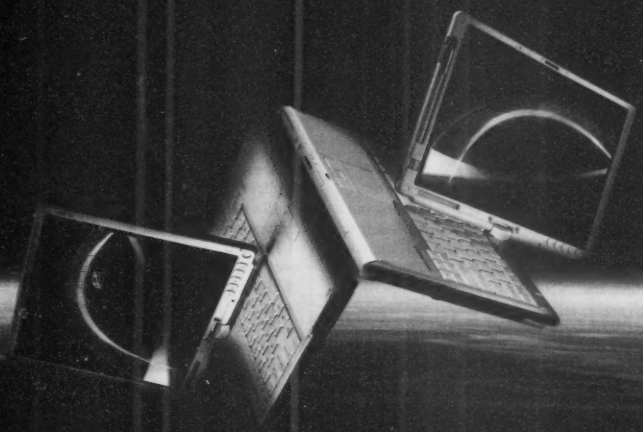

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BRIEFS

Microsoft Files Suit For Alleged Piracy

Microsoft Corp. has filed 26 lawsuits against alleged dealers of pirated software in seven U.S. states. Microsoft claims that the companies sold pirated software or computers loaded with pirated software. The suits were filed in federal courts against businesses in Colorado, Georgia, Illinois, New Jersey, New York, Ohio and South Carolina. Microsoft said it filed the suits to protect itself and its resellers.

Ingres Acquires German Reseller

Ingres Corp. last week acquired Thinking Instruments AG, one of its resellers and service providers, for an undisclosed sum. Officials said the purchase of the Ilmenau, Germany-based company will help Ingres expand in Germany and the Middle East. The move marks the open-source database company's first acquisition since it was spun off from CA Inc. last November. Thinking Instruments resells Ingres software to the public sector and to the steel and energy industries.

Infineon to Spin Off Qimonda Chip Unit

Infineon Technologies AG plans to file an initial public offering in the U.S. for its memory chip unit, Qimonda AG, that could fetch as much as $1.1 billion. About 33% of the proceeds from the stock sale will go to Infineon, while Qimonda will take the rest. The dynamic RAM maker said it intends to use money from the stock sale to finance investments in chip factories, equipment and research and development.

HP Adds Arrays for Small, Midsize Firms

Hewlett-Packard Co. plans to launch a family of networked storage products in September to compete with EMC Corp. for small and midsize business customers. HP said the products will simplify the process of migrating data from application servers to shared network storage.

Pa. Turnpike Starts SAP, Duet Rollout

Officials say $36.5M project will be done by 2008, cite ease of user training

BY MARC L. SONGINI

THE Pennsylvania Turnpike Commission has started rolling out a $36.5 million SAP AG software installation that will include the much-touted Duet technology, which enables interoperability between SAP's ERP applications and Microsoft Corp.'s desktop products.

By installing Duet with the mySAP ERP 2005 applications, the commission expects to avoid the need for extensive user training in SAP, said Jeff Mesaric, CIO of the Harrisburg, Pa.-based agency.

"The training is going to be less complex," he said. "The information [in SAP] will be accessible throughout the organization to information workers [via Microsoft applications]. That will be a tremendous asset."

Duet, formerly called Mendocino, was jointly developed by SAP and Microsoft to let users access and interact with back-end SAP ERP and other applications via a Microsoft Outlook interface and Exchange e-mail software.

The turnpike commission oversees more than 530 miles of highway, has 2,300 employees and collects $580 million in tolls annually.

Although the agency has bought 1,100 licenses for Duet, exactly how the technology will be deployed is still an open question, said Mesaric, noting that the project is still in the blueprint phase. He did say that the agency has more than 1,000 PCs, many used by a "younger workforce" well versed in Microsoft Office.

More detailed plans for the project will be laid out toward the end of 2007, when the rollout of SAP is at the end of the second of its four phases.

Mesaric expects the full installation of logistics, inventory management, field work-order, human resources and financials software to be completed by the end of 2008.

CHRISTINE J. BAKER

THE PENNSYLVANIA TURNPIKE COMMISSION hopes Duet can ease the transition to mySAP ERP applications.

Mesaric noted that the Duet software wasn't the deciding factor in the agency's choice of mySAP to replace mainframe-based ERP systems.

Rather, he said, it was more because of SAP's strong product road map and because of the availability of experts due to nearby SAP installations in state government agencies and at companies such as The Hershey Co.

Jim Murphy, an analyst at Boston-based AMR Research Inc., noted that while Duet is attractive technology, it's not a panacea for all corporate users.

"Basically, the upshot on Duet is that yes, it is a very popular and attractive topic for joint SAP and Microsoft customers, but there are several concerns and challenges for users," he said.

While some organizations, such as Pennsylvania's turnpike agency, may be in an ideal position to leverage and adopt Duet, many longer-standing SAP customers simply don't have the technology to take advantage of Duet, said Murphy. ▸

Executive Shuffle Follows Avaya Profit Plunge

BY MATT HAMBLEN

Users said the new CEO of communications networking provider Avaya Inc. faces some significant challenges.

Avaya last week named Louis D'Ambrosio CEO, replacing Donald Peterson, who was dismissed following a drastic drop in third-quarter profits.

Peterson, 56, will also step down as chairman on Sept. 30. A company spokeswoman said that the decision was made by the Avaya board of directors, but she declined to comment further. Peterson could not be reached for comment.

D'Ambrosio had been a senior vice president and president of global sales and marketing at the company.

The company also named Michael Thurk chief operating officer. He had been a senior vice president and president of the company's global communications solutions unit.

Christine Olsen, an IT manager at Univera Healthcare in Buffalo, N.Y., said she hopes the new CEO will work on fixing billing problems. "Avaya is good in development and support of the products they have, but as for the paperwork and billing, they leave a lot to be desired," she said.

D'AMBROSIO must boost profits.

Olsen, who is president of the Avaya users group in Buffalo, said user group members purchase Avaya equipment through integrators and resellers and thus have limited direct involvement with the company.

"I'm very enthusiastic about Lou D'Ambrosio taking the reins at Avaya," said Bill Moore, communications manager at New York's Museum of Modern Art, an Avaya user. "Lou has a reputation for seeing things through the customer's eyes."

Kathy Brooks, president of the Atlanta Avaya Technology Users Group, said she is not concerned about Peterson's departure. "All my associations [with Avaya] have been very positive," she said.

Brooks is an IT manager at ACS Government Healthcare Solutions in Atlanta, where about 2,000 employees use Avaya IP phones and networks.

Basking Ridge, N.J.-based Avaya's profit for the third quarter of fiscal 2006 tumbled 77% to $44 million, compared with $194 million in the same period a year earlier. Sales for the quarter increased 4.9% to $1.3 billion, up from $1.2 billion.

Avaya's financial problems resulted mostly from restructuring costs following the acquisition of Tenovis GmbH in November 2004, said Allan Sulkin, an analyst at TEQConsult Group in Hackensack, N.J. Avaya reported a $22 million charge in the quarter.

Although they're growing segments of the market, services and applications haven't increased as much as they should have at Avaya, according to Sulkin.

Peterson had been the CEO of Avaya since the company was spun out of Lucent Technologies Inc. in 2000. D'Ambrosio, 42, joined Avaya in 2002 after 16 years at IBM.

Sulkin said Avaya's greatest strength is its product portfolio and its professional services. Its biggest weakness, which he said D'Ambrosio must confront, is that Avaya and other networking equipment makers "have underestimated Cisco, which has hurt everybody." ▸

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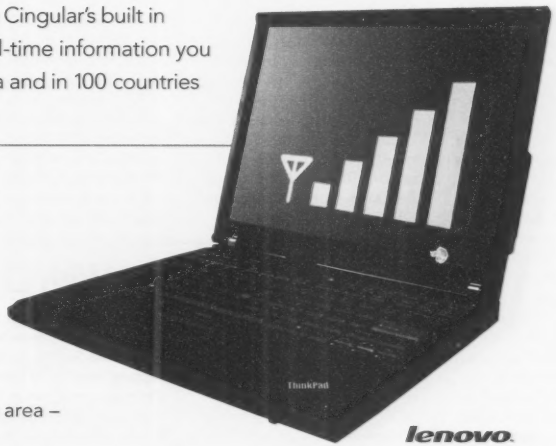

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Continued from page 1

Open-source

Software Inc., backed up by open-source applications MySQL, Apache Tomcat and JBoss — all running on top of Microsoft Corp.'s Windows Server operating system.

Open-source desktop technologies, such as the OpenOffice application suite and Firefox Web browser, have long had their greatest uptake from Windows users. Back-end software has been a different matter, though. Microsoft and open-source vendors have portrayed the choice of which products to use as a black-and-white decision: Microsoft's all-inclusive .Net infrastructure or the LAMP stack, which includes Linux, the Apache Web server, the MySQL database and either the Perl, Python or PHP programming language.

But Hecht is part of a growing wave of users opting for a third way that some have dubbed WAMP. Advocates of the Windows-based approach say that it provides the best of both worlds. "Would I want to put it all on Linux? Yeah, that's the geek in me," Hecht said this month. "But the Alfresco application doesn't necessarily run better under Linux."

And although the need to license Windows may make the new content management system more expensive than it would have been with Linux-based hardware, not having to hire additional IT workers or retrain existing staffers to support the open-source operating system makes "the whole thing a wash" financially, Hecht said. Informa is currently running the system in pilot mode.

Faced with the allure of open-source applications among its customer base, Microsoft has toned down its .Net-only rhetoric. "It's a myth that open-source and Windows can't work together," said Ryan Gavin, a director of platform strategy at Microsoft. "Customers just aren't religious about these things."

Many open-source vendors continue to make products that work best or only on Linux, but some are questioning the previous decisions to ignore the Windows market.

"As an open-source vendor, we believe in choice," said Ram Venkataraman, director of product management for JBoss. The company has said that half of its customers run its application server software on Windows. And despite its acquisition by Linux vendor Red Hat Inc. in June, JBoss doesn't plan to cut Windows users out of the picture, Venkataraman said.

"It's important for Java deployments to run on Windows," he said. "If you look at Web services, it's all about interoperability."

The need to interoperate and cut costs led Sherwin Lu of Le Petite Academy Inc. to install the JBoss software on top of Windows Server 2003 last year. Lu, director of application infrastructure at the Chicago-based preschool chain, said moving from a Visual Basic 6 development environment to J2EE "felt a little risky."

But the cost of training his staff on J2EE was about the same as it would have been if he had upgraded to a .Net infrastructure. Moreover, by adopting JBoss rather than proprietary application servers, Lu figured that he saved about $1 million in license fees alone. And he said that by staying on Windows, he avoided the pain and cost of hiring an all-new systems administration and support team.

In another sign of the growing interest in WAMP setups, at least 12 bundles of the required open-source products are now available to be downloaded and installed on Windows servers. For example, the XAMPP installer created by Berlin programmer Kai Seidler is available for Windows as well as for Linux and other operating systems, including Solaris and Mac OS X. Thus far, more than 80% of its 3 million downloads have been made by Windows users, Seidler said.

Even Web servers — a long-time sweet spot for the LAMP stack — are increasingly being run on Windows hardware, according to Mark Brewer, CEO of Covalent Technologies Inc. in Walnut Creek, Calif.

Covalent provides support services to users of The Apache Software Foundation's open-source products. Brewer said almost one-third of the customers his company supports on the Apache Tomcat server are running the software on Windows. "That had been 15% to 20% historically," Brewer said at last week's O'Reilly Open Source Convention in Portland, Ore.

In addition, nearly one-fifth of Covalent's customers run Apache's flagship Web server on Windows. Brewer said he thinks that figure is equally significant, considering that Microsoft bundles its Internet Information Server software with Windows Server.

But Microsoft's ability to integrate its own back-end products with Windows gives it a big edge over open-source insurgents in general, said Mike Olson, vice president of embedded technologies at Oracle Corp. and former CEO of Sleepycat Software Inc.

Sleepycat, which Oracle acquired in February, developed the open-source Berkeley DB embedded database (see Q&A below). But, Olson said, "if I've already got Microsoft [technology] installed on my Windows server box, why would I bother to throw it away and install something else?" ▸

Open Windows

The estimated percentage of open-source downloads made for Windows-based systems:

MySQL: 40% of its 50,000-plus daily downloads are for Windows.

JBoss: 50% of its customers use Windows Server.

OpenOffice: 68% of downloads are done for Windows.

SugarCRM: 35% of its users are running the CRM applications on Windows Server.

SOURCES: MICROSOFT, OPEN-SOURCE VENDORS

Oracle Stays Course With Lightweight Databases

BY ERIC LAI
PORTLAND, ORE.

Oracle Corp. has never enjoyed much respect from IT managers looking for alternatives to large relational databases. **Michael Olson**, *the former CEO of Sleepycat Software Inc., wants to change that.*

Olson is now vice president of embedded technologies at Oracle, which bought Sleepycat in February. Oracle is making a concerted effort to move beyond the data center with products such as Sleepycat's open-source Berkeley DB embedded database; Oracle Lite, which runs on mobile devices; and TimesTen, a caching database that Oracle acquired last year. Olson spoke with Computerworld *about the company's new strategy at last week's O'Reilly Open Source Convention. Excerpts follow:*

What will change for Berkeley DB users under Oracle? The biggest change is the fact that Sleepycat had 25 employees and Oracle has 56,000. Customer support used to be provided by the engineering team backed up a very small support team. About half the cases would get handled by support, with the other half sent back to [the] engineers. We expect that model to continue. But now we have a team around the globe that can take cases in local languages. Round-the-clock coverage is easier and less expensive now.

Developers will continue to interact with customers. That's one thing Larry [Ellison, Oracle's CEO] specifically said he liked about open-source — the easy communication between the consumers and developers of software. We hope and expect that there will be no negative changes [to that process].

Users often choose Berkeley DB specifically because they don't want to have to deal with a full-blown SQL database. Does your new role feel weird? Not at all. If you need the full power and flexibility of SQL, I used to have to turn you away. Oracle used to have a much harder time answering nonrelational requirements.

Now, if you don't need SQL or ad hoc query [capabilities] but just want a lightweight, embeddable engine, Berkeley DB gives users that. It's not the case that there's no overlap among these products, but their target is different customers.

What is the development road map for Berkeley DB and the other products you oversee? In general, we're concentrating on continuing to serve our existing niches and customers. One notable change is that because we're now part of a much larger organization, we want all the products, including TimesTen and Berkeley DB, to interoperate with others in the Oracle lineup [so they will] behave predictably if you're an Oracle DBA.

We're about to release Version 4.5 of the Berkeley DB core engine, which was already specced out [before the acquisition]. But what our much larger customer base wants now is more interoperation among the products. So that's driving our thinking.

With just 25 employees, do you think Sleepycat is helping to bring open-source values to Oracle? I've been in the database industry since 1986. I'm well aware of the sometimes fairly negative reputation that Oracle has of being a fearsome competitor. My experience inside the company so far has been fairly good.

Oracle is a company where the individual contribution matters. Moreover, there is a legacy of open-source involvement at Oracle and by its employees. We have just done a pretty bad job of talking about it. ▸

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GLOBAL DISPATCHES

An International IT News Digest

Motorola, Wipro Plan Network Services Firm

BANGALORE, INDIA

MOTOROLA INC. and offshore outsourcing vendor Wipro Ltd. last week disclosed plans to form a joint venture that will offer network management services to telecommunications companies, government agencies and corporate users.

The joint venture, called WMNetServ, will handle customers' network planning, deployment, optimization, security, operations and support, said A.L. Rao, Wipro's chief operating officer. The new company will run a global network operations center in Delhi that will be integrated with Motorola's operations centers in North America and Europe.

Bangalore-based Wipro will own a majority stake in WMNetServ through Wipro Technologies, its IT services unit, Rao said. He didn't reveal the total investments that Wipro and Schaumburg, Ill.-based Motorola will make in the joint venture or a timetable for starting up the new company. "That will depend on a business plan, which is still being formulated," he said.

■ NANCY GOHRING AND JOHN RIBEIRO, IDG NEWS SERVICE

GLOBAL FACT

15.3%

The rate of growth in spending on IT services in the Czech Republic last year. The total amount of money spent was $1.15 billion U.S.

SOURCE: IDC, FRAMINGHAM, MASS.

Eurid Suspends Domain Names, Sues Registrars

DIEGEM, BELGIUM

MORE THAN 74,000 Web addresses within the European Union's new .eu top-level domain have been suspended, and 400 registrars have been sued for breach of contract for allegedly obtaining the addresses via fraudulent means.

Diegem-based Eurid VZW, a nonprofit organization that oversees the .eu registry, said that a syndicate of registrars had systematically acquired domain names with the intent of selling them. That process, known as warehousing, is prohibited by Eurid.

According to Eurid, all of the domain names registered by the 400 registrars it has sued are in the hands of three U.K.-based companies: Fausto Ltd., Gabino Ltd. and Ovidio Ltd. Eurid contends that the companies and the registrars are actually a single entity.

The three companies couldn't be reached for comment. They appear to have identical Web sites, with the same text describing their businesses. Only the name is different on each site.

■ JOHN BLAU, IDG NEWS SERVICE

Alcatel, Lucent Get Green Light in Europe

PARIS

THE EUROPEAN COMMISSION last week approved the planned merger between Lucent Technologies Inc. and Alcatel SA, removing a key hurdle for the two telecommunications equipment vendors.

The EC concluded that the merger of the companies wouldn't significantly impede competition in Europe despite their combined large share of the markets for optical core switches and DSL multiplexers.

The U.S. Federal Trade Commission approved the deal between Paris-based Alcatel and Murray Hill, N.J.-based Lucent in June. The stock-swap agreement, which was announced in April, is scheduled to be voted on by the shareholders of both companies in early September. ▸

■ NANCY GOHRING, IDG NEWS SERVICE

Compiled by Mike Bucken.

Briefly Noted

Singapore Telecommunications Ltd. said Lee Hsien Yang plans to step down from the post of group CEO once a successor is named. SingTel said a global search is under way for a successor to Yang, who has been the company's CEO since 1995. No reason was given for his planned departure.

■ SUMNER LEMON, IDG NEWS SERVICE

The Sage Group PLC in Newcastle Upon Tyne, England, has acquired a 51% stake in Elit Group, an Ecully, France-based vendor of business process management software for the transportation and food industries. The deal was valued at about £10.8 million ($20 million U.S.). Sage develops financial and CRM software for small and midsize users.

■ JEREMY KIRK, IDG NEWS SERVICE

Electronic Data Systems Corp. plans to merge its IT services subsidiary in India into the operations of Mphasis BFL Ltd., a Bangalore-based outsourcer that EDS bought majority ownership of in June. The merger would increase the stake that EDS holds in Mphasis from 52.4% to 61.8%. The combined entity will have more than 15,000 employees.

■ JOHN RIBEIRO, IDG NEWS SERVICE

Sun Exec Lays Out Open-source Goals, Strategy

BY TODD R. WEISS

Simon Phipps, *chief open-source officer at Sun Microsystems Inc., has overseen several open-source initiatives in recent months. For instance, last year the company released OpenSolaris, the open-source version of its Solaris 10 Unix operating system, and in June it unveiled plans to open the source code of its Java programming language. In an interview with* Computerworld, *Phipps discussed Sun's open-source strategy and the view of some industry experts that Sun isn't fully committed to open-source software.*

How do you respond to critics who say Sun isn't doing enough with open-source software? In the last five years, people have positioned Sun as uncommitted to open-source. It's the competitive market and the press that does this. But if you look at the history, it's pretty hard to sustain that as a position. [Network File System] was invented by Sun and released as free software. In 1995, Sun released the Java platform with full source code that led to incredibly rapid adoption. Sun helped fund Mozilla as it went open-source and continues to contribute. Sun has been a fundamental player in accessibility code for [the GNU Object Model Environment]. I can run down a litany of these things.

What are Sun's plans for open-source? We've actually stepped up the rate of contribution. We've released Unix as open-source software by taking the Solaris source code. Right now, we're in the mix of putting as much as possible of our software products into open-source, including Java and NetBeans tools.

Can you elaborate at all on what some observers say are Sun's vague plans for contributing Java to the open-source community? The truth is, we're doing it as fast as we possibly can. If I could snap my fingers and make it happen tomorrow, I would. It's not a simple endeavor. You can't just slap a license on things. You have to be sure that you have the rights to every line of code. So we have to work through all sorts of issues — legal, access, encumbrances, relationships with Java licensees. All of these issues will take time to resolve.

Can you provide any estimate on when the Java project will be completed? I don't think it's going to be very long at all. We have staffers who have instructions that it's going to be open-source. They will get it done, and they will get it done soon. With Solaris, Sun lawyers worked on the ownership issues with that code for nearly five years. It's not going to take that long with Java.

What other Sun products will move to open-source? The next set of things after Java is open-sourced will be middleware products, including a portal server, an identity server and a Web server. All of those things are being considered for open-source. This will happen between now and next year.

What is Sun's overall open-source strategy? This is all a dramatic change for Sun. We are restructuring our product portfolio for the market we think is coming. We're not checking out completely from the old world. We still see customers who still want boxed products. What matters to us is to create volume, and when we create volume, we'll create revenue. We made Unix available for free with OpenSolaris 10. We find that most customers want that service and pay us for it. By giving it away, we have increased the use of Solaris in a large way and have gotten larger revenue for support. We're taking a big risk giving away the free rights to use Solaris Unix. ▸

IBM Upgrades Unix Servers, Power Chip Architecture

BY PATRICK THIBODEAU

IBM last week unveiled upgrades to the high end of its System p5 Unix server line that add dual-core Power5+ processors. The new chips help boost system performance by 25%, the company said.

The performance boost attracted the interest of Bill Powell, manager of systems engineering at Le Mars, Iowa-based Wells Dairy Inc., though he's not currently in the market for new servers. "Anything they do to increase the power and enhance the performance of their products, we're going to look at," Powell said.

Wells Dairy in March installed several new IBM p570 servers with standard Power5 CPUs in a cluster to run Oracle databases containing customer contacts and other information.

Consolidation a Plus

IBM's two new models are the p5-595, which can scale up to 32 processors with 64 cores, and the p5-590, which has 32 cores. A fully configured high-end system can support up to 254 virtual servers per physical server.

Each processor core can support up to 10 virtual servers, according to IBM.

The new IBM servers will be shipped with the company's new Tivoli Usage and Accounting Manager metering tool, IBM said. The tool can track usage by business unit, helping companies better allocate costs, said Jeff Howard, director of System P marketing at IBM.

The servers will be available Aug. 11. Pricing was not immediately disclosed by IBM.

Separately, the Power.org group, founded by IBM and 11 other firms in 2004 to develop and promote the Power technology, last week disclosed that it has developed a unified Instruction Set Architecture (ISA) for the Power processor.

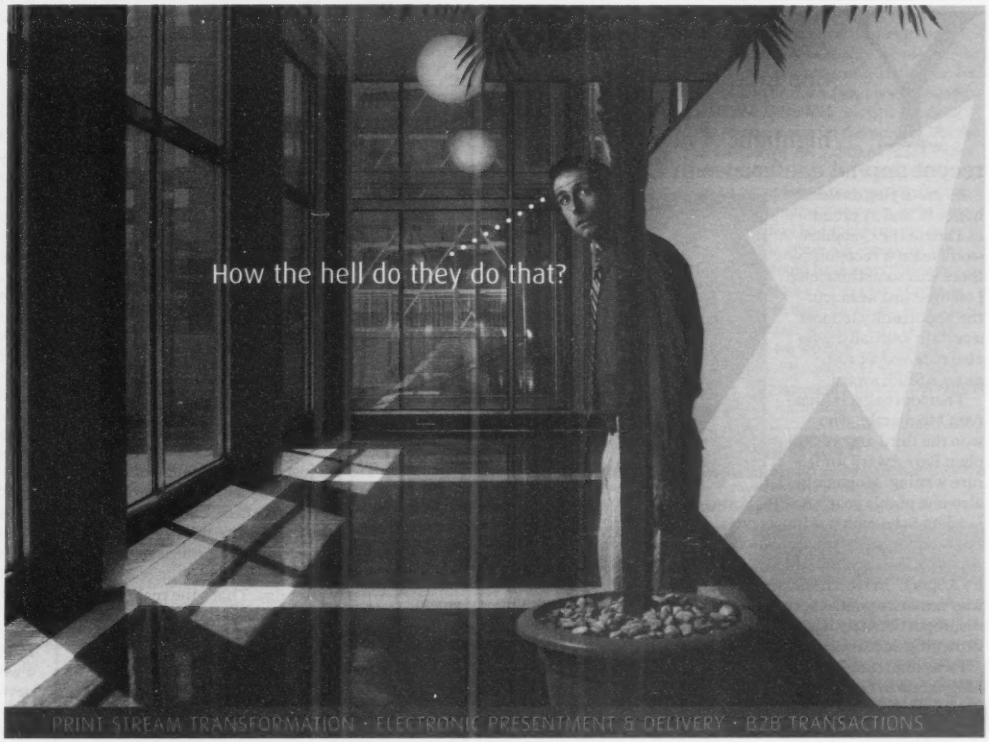
The ISA details how a chip communicates with the operating system.

Previously, the Power ISA was slightly modified for different uses, such as for desktops, embedded systems and servers.

The shared ISA would allow a tool vendor, for instance, to build only one set of tools for the Power processor architecture, said Bill Dykas, manager of Power ecosystem development at IBM and head of operations at Power.org.

According to Charles King, an analyst at Pund-IT Inc. in Hayward, Calif., the new ISA can make it easier for developers to build software for both systems incorporating embedded Power chips and those running high-end processors.

Todd R. Weiss contributed to this story.



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DON TENNANT

Stigma by Stereotype

YOU'D THINK THAT accepting the American Society of Business Publication Editors' 2006 Magazine of the Year award would have been the singular highlight of my attendance at ASBPE's recent annual conference in Chicago. It wasn't.

DON TENNANT is editor in chief of *Computerworld*. Contact him at don_tennant@computerworld.com

As gratifying as that honor is, and as proud as I am of the *Computerworld* team it recognizes, there was something else I enjoyed just as much: the opportunity to meet a certain journalist who also received a prestigious ASBPE award.

That journalist is Shabnam Mogharabi, who won the third annual Stephen Barr Award for feature writing. Mogharabi, also one of this year's ASBPE Young Leaders Scholarship winners, was honored for her two-part feature in *Aquatics International* titled "Minority Report," in which she delved into why minority youths account for a disproportionately high number of drowning deaths in the U.S.

I was impressed enough with Mogharabi to be compelled to read her story, and I was appalled by the stereotyping she uncovered. The story referenced a 1969 study called "The Negro and Learning to Swim," which contended that blacks are biologically less buoyant than whites because of higher bone density and body mass. Despite dozens of subsequent studies that have proved this outlandish notion to be false, it seems many black parents continue to buy into the belief. Consequently, they're disinclined to encourage their children to pursue swimming, and the children's resultant inability to swim is a recipe for disaster at swimming pools.

It's a sad social commentary. As the father of a daughter who is as fair-skinned as her husband is black, I wonder what the perpetuators of this myth would say about the buoyancy of my two grandchildren. Maybe they're half-buoyant.

I mention all of this simply because stereotyping is so harmful, whether it's based on race, religion, class, gender, ethnicity — or even profession. And the fact is, stereotyping of IT professionals has harmed this industry.

One of the stories in our special report titled "The IT Profession: 2010" in the July 17 issue provided an example of what I'm talking about. In "New Recruits Still Scarce," Randy Pausch, a professor in Carnegie Mellon University's computer science department and co-director of the university's Entertainment Technology Center, is quoted as stating that the IT profession "has a well-deserved reputation for [being composed of] people who are socially inept introverts."

Really, professor? You find that reputation to be "well-deserved"? Is that the message you're conveying to your students? Little wonder that new recruits are still scarce.

The ignorance that statement exhibited is maddening, and the fact that it came from a professor at such a highly respected university is stupefying. It makes me even more concerned than I already was about the insularity of the IT programs at our nation's universities. Might these schools be as out of touch with reality as Pausch's comment suggests?

As someone whose dominant reason for choosing IT as a journalistic beat is the dynamism and sheer magnetism of the people in this industry, it just floors me that anyone with any involvement in the IT community could possibly feel inclined to perpetuate the wall-hugger myth.

It's just one comment by one professor, but the fact is, our universities aren't doing nearly enough to promote IT as an attractive career path. The people in this profession don't hug walls. They knock them down, day after day. That's the reality. And that's the message our young people need to hear from all of us — especially from their educators.

Don Tennant

MICHAEL GARTENBERG

Technology Now Defines The Business

INFORMATION technology has changed quite a bit. At the same time, the business world's reliance on technology has reached a level that was once unimaginable.

Back in the '60s, IT was pretty much confined to very specialized tasks related to data processing. It was a single-device model, totally hands-off as far as the end user was concerned. By the mid-'90s, with the rise of personal computing, technology had moved out of the data center and onto the desktop. In contrast to the days when the mainframe ruled, it was an era of multiple devices networked locally, and the end user was hands-on with the device, albeit with heavy support from the IT department.

MICHAEL GARTENBERG is vice president and research director for the Personal Technology & Access and Custom Research groups at JupiterResearch in New York. Contact him at mgartenberg2@optonline.net. His weblog and RSS feed are at http://weblogs.jupiterresearch.com/analysts/gartenberg.

Today, IT has evolved even more. The mainframe and PC are both still with us, but the PC era is as much a part of the past as the mainframe era. We live in a world of multiple devices networked locally and globally and oftentimes owned and operated by the end user. Information is shared, collaborated on and distributed in real time. While most of the old tasks are still performed, today's levels of connectivity and functionality allow them to be done in newer and more innovative ways.

What is changing is nothing less than the relationship between technology and business. The old notion was that a business defined the technology it used. If its employees used typewriters, PCs running a word processing program would make them more efficient. If they used ledger books, they would move up to PCs and spreadsheets. Slide projectors were replaced with digital projectors

connected to PCs running presentation software like PowerPoint.

The new notion is that often it's the technology that defines the business. Entire new businesses have emerged that are defined totally in terms of technology. Fifteen years ago, a company like Amazon.com would have existed only in the realm of science fiction, but today even mainstream companies can't function without technology.

This is new. If all PCs had gone dark 20 years ago, you could have gone back to your typewriter and done pretty much the same work. If the entire Internet had shut down 10 years ago, the effect on business would have been negligible. Today, either of these events would bring most business to a standstill. Were you able to get much done the last time the network went down for more than an hour?

So for businesses, it's no longer a question of whether to adopt technology; it's become a question of how to use technology to drive things beyond core business functions. IT departments must develop methods for assimilating new technologies that help the business find new ways to differentiate itself in the marketplace. I'm not talking about easy stuff, like integrating the next version of Windows or Mac OS. I mean things like Asynchronous JavaScript and XML, better known as AJAX, for development, and the ability to maximize the potential of new tools for communication and collaboration, such as weblogs, RSS and OPML (Outline Processor Markup Language).

In the past, IT helped make employees more productive. In the future, the challenge will be to help companies differentiate by picking and capitalizing on new technologies that go beyond the core needs of business operations and can set the stage for the next wave of growth.

VIRGINIA ROBBINS

What Keeps Management Focused?

I REMEMBER SEEING tendrils of fog floating in across the San Francisco Bay that July morning. It couldn't have been more than 68 degrees outside, but in the boardroom, it felt hotter than our Phoenix call center's parking lot.

We were reviewing production results from the day before, and a key vendor hadn't been able to meet our customer's demands. As the business analyst spoke about the vendor's actions, I looked past his shoulder to the wisps of gray outside and wondered what could have been different.

VIRGINIA ROBBINS is a former CIO and is now chief operations officer at North Bay Bancorp in Napa, Calif. Contact her at vrobbins@[redacted]

No corners had been cut on this project. IT, marketing and operations had worked well together; the product had been released on time. IT had followed a comprehensive vendor-selection process. The selection had been a transparent and inclusive process and universally approved by the team.

What could we learn from this? The team's self-assessment was that it had followed industry best practices, but with customer demand exceeding projections by more than 400%, there hadn't been any way to anticipate this project's failure. An internal audit came to the same conclusion. With the auditors satisfied, I stopped asking. I was sure there was something to learn, but it was time to move on.

That was years ago. Recently, on a similar day in California, waiting for the fog to roll in, I thought again of that project. I've come to realize that the lesson to be gained from it was not that a process or product failed, but that senior management failed.

When news reached us that our competitors were having problems meeting customer demand, we all clapped. But we didn't heed the warning for our own company that this news carried. Although we applauded ourselves for meeting our customers' demands when our competitors could not, we didn't stop to ask ourselves if their problems could become our problems. As a smaller player in a national market, we were used to picking up customers when the big boys made mistakes. In our business model, a competitor's failure wasn't a special event. Yet, two weeks later, we too would fail our customers.

When proven processes lead to unexpected, negative results, it can be only one thing: management. So, what keeps management focused? Companies rarely reward staff for suggesting that management may have made a mistake, but at the company I work for now, we have a self-professed professional devil's advocate. This is a member of senior management who directly challenges management's assumptions, just before a decision is finalized.

At first, it was a bit disconcerting to be consistently challenged, and it took me a while to understand when he was playing his devil's advocate role and when he was representing the department he oversees. In the beginning, I had to ask him to clarify for me which hat he was wearing, and for a while he made it his habit when presenting me with constructive criticism to begin his statements with the phrase, "As the devil's advocate. . . ." Now that I know him better, this is no longer necessary, and having seen him in action for the past few months, I've come to believe that if we had had someone filling a similar role at my old company, the outcome would have been different.

As our applause over the competition's failure died, he would have asked, in a gentle but probing way, how we knew that we wouldn't fail our own customers. His question would have ended management's moment of hubris with some scorching reality.

WANT OUR OPINION?

More columnists and links to archives of previous columns are on our Web site:
www.computerworld.com/columns

READERS' LETTERS

Communication Is Root to Solutions

ABOUT 30 YEARS AGO, I realized that systems do not solve problems; communication does ["The User's View," Management, May 29]. I started my education in computer science, but I found it lacked solutions, so I continued my education by obtaining a degree in business administration. This, too, was not a path to solutions.

With a few years of work under my belt, I realized that a lack of communication – bad communication, incomplete communication, misleading communication – was the cause of all problems.

Instead of pursuing an MBA or a graduate degree in computer science, I decided to major in business behavior modification and group facilitation. I did not want to alter behaviors; I wanted to understand the *why* behind the behavior. This I have done successfully.

I have never failed on a project, because I ask questions that IT typically does not. I receive more thorough requirements and highly useful supporting information as a result of my education.

I hadn't heard of anthropologists in IT, but then again I am the only psychologist in IT that I know of.

For 30 years, I have been trying to get people to understand that communication is the root to all solutions. Perhaps these anthropologists will succeed where I have been unsuccessful; I sincerely hope so. There have been too many failed projects due to a lack of communication between IT and the rest of the working world.

Joseph Scheible
Principal management consultant, JES Consulting LLC, Plano, Texas

What's Required for Good Processes

THE ARTICLE "IT Looks to Halt Clashes Between Users, Developers" [Page One, May 29] is informative, but the sad fact is that if you changed the names and minor circumstances, it could have been written 30 years ago. My dusty old dissertation on requirements, circa 1975, addressed similar opportunities.

In practice, we really haven't gotten much smarter when it comes to properly communicating and managing requirements. The same problems still exist. The need for well-built and well-integrated processes remains. There are some nice tools that help, but nothing will substitute for honest, open communication among all stakeholders.

Carl A. Singer
Passaic, N.J., csinger@acm.org

I READ YOUR article with interest, but I was surprised to find that there wasn't one mention of the most critical role in ensuring that user needs are properly defined: the business analyst.

Ideally, the BA should be embedded in the business and have the skills to understand both the processes of each business group and the technical restrictions that a particular technology tool may have. BAs embedded in the IT department are too far removed from the business to be effective.

No matter which tool a company selects to capture business requirements, it still needs a talented BA to carefully define these requirements in a business context and in a technically feasible format.

Stephen Gondert
Business analyst, Boston, stephen.gondert@fmr.com

COMPUTERWORLD welcomes comments from its readers. Letters will be edited for brevity and clarity. They should be addressed to Jamie Eckle, letters editor, Computerworld, PO Box 9171, 1 Speen Street, Framingham, Mass. 01701. Fax: (508) 879-4843. E-mail: letters@computerworld.com. Include an address and phone number for immediate verification.

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SECURITY MANAGER'S JOURNAL

No Data Left Behind: Dealing With Disposal

C.J. Kelly finds that government mandates mean you can't just donate your old computer hardware to a worthy nonprofit. **PAGE 26**

OPINION

Learn the Science of Compliance to Survive

It's past time to make regulatory compliance part of a comprehensive and practical security plan, says Douglas Schweitzer. **PAGE 28**

MAKING A Federal Case

FBI agents ... cybercrime activities ...

By Robert L. Mitchell

IDENTITY THEFT, hacking for profit, espionage, iPod slurping — the FBI is increasingly focused on helping organizations fight these and other cybercrimes. *Computerworld*'s Robert L. Mitchell asked several agents what they're seeing in the field and what advice they can offer IT. **Andrew G. Arena** is special agent in charge of the FBI's criminal division in New York, **Matt Heron** is assistant special agent in charge of the transnational criminal enterprise branch in New York, and **Timothy O'Brien** is a special agent with the computer crimes squad in the New York office. **Nenette Day**, a special agent in Boston, was responsible for a sting operation that recovered the source code stolen from a major computer-aided design software vendor.

You all met recently with corporate CIOs. Why are you seeking them out?

ARENA: We're trying to build a relationship with the private sector where they will trust us, where they will be comfortable coming to us if there is an intrusion.

What's on the minds of CIOs you've met?

ARENA: Right now, the concern is, What is the FBI going to do? If we go to the FBI, is this going to be in the media the next day? Is our stock price going to go down? Am I going to lose my job? How will we handle it? Are we discreet?

Are you hearing about specific issues?

ARENA: A lot of it was, "This is what we're seeing. . . . We're getting pinged from locations in the old Soviet bloc, the Philippines,"

FBI Agents

ANDREW G. ARENA,
special agent in charge of the criminal division in New York

NENETTE DAY,
special agent in Boston

MATT HERON,
assistant special agent in charge of the transnational criminal enterprise branch in New York

NOTE: AGENT O'BRIEN IS WORKING UNDERCOVER. NO PHOTO AVAILABLE.

O'BRIEN: They're on the front lines, dealing with the things that we're investigating. I'm seeing a lot of activity coming from overseas. That seems to be a major source of the phishing.

How big of an issue is cybercrime to the FBI?

ARENA: Cybercrime is the No. 3 overall priority at the FBI, behind counterterrorism and counterintelligence.

What happened to organized crime?

ARENA: It's still there. Cybercrime really overlaps every other program in the FBI. It's not just some 18-year-old kid with no social life trying to hack into the system. It's organized groups, it's state-sponsored organizations, it's terrorist organizations, for whatever purpose, trying to infiltrate our country. It's economic espionage targeting our infrastructure, trying to damage us financially. There's a lot of different reasons and a lot of different groups involved in this. That's why it's such a high priority.

From which areas overseas are most attacks originating right now?

O'BRIEN: Eastern Europe and Asia are two of the bigger hot spots.

The FBI has reported that some companies have been victimized by another scam, interactive voice response spoofing. How does that work?

DAY: Phishers are now spoofing the phone trees of various companies, mainly banks. It sounds exactly like the phone tree that you're used to calling into where you put in your account number and PIN. You're putting in your account number and PIN, but you're actually calling a spoofed number that has been sent to you in an e-mail [saying], "There are problems with your account; we don't want you communicating over the Internet — it's not safe — just call this number to check in and make sure your account balance is correct." They're getting [user account and PIN] information by spoofing the phone tree of companies. It's the latest trend.

What are the top problems reported?

O'BRIEN: Now there is a profit motive. Take botnets, for example, [where the creator is] leasing out part of the botnet for use in some other type of crime. That's a relatively new evolution of the old crimes.

DAY: Denial-of-service attacks were a problem a long time ago. Then companies got wise. They altered the network management, and it became not much of a problem. Then the botnets came on, and you've got thousands of compromised computers all over the world now attacking a site that your network isn't going to be able to handle. They're too big, and so the denial-of-service attack has once again become something that you have to be very concerned about. The botnets, where you have thousands of compromised computers, are just that powerful.

What have been your most notorious cases?

HERON: The largest consumer fraud in the U.S. was committed by the Gambino crime family. The loss was approximately $250 million dollars in an Internet fraud. They took a two-pronged approach. One was offering these free tours of adult Internet sites and then asking for a credit card for age-verification purposes. Nothing legitimate is going to come out of a question like that. People were taking free tours, and then their credit cards were getting hit for charges over and over again.

The second prong to this scheme involved telephone cramming, where they co-opted the head of a telephone company and the president of a bank in the Midwest and were going through a third-party billing provider, putting charges on peoples' telephone bills for services not provided.

The average person doesn't look too often at the individual charges on their phone bill. A small amount for this, a dollar for that . . . nobody knows what they are, and no one pays much attention. That's what they were counting on. The end result was a $250 million loss to the public committed by four members and associates of one of the five La Cosa Nostra families in New York City.

Do you see a lot of organized crime involvement in stealing trade secrets?

ARENA: I would call it organized groups. We see a lot of activity out of the former Soviet bloc countries of Eastern Europe. The bureau right now is kicking off an initiative where we're sending agents into those countries to work with the local law enforcement.

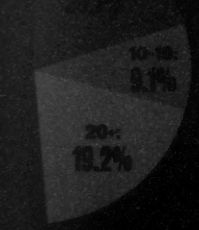
Do you see a lot of problems with mobile devices?

DAY: Mobile computing is starting to be the big concern, with thefts of customer lists or intellectual property. The fact that laptops, PDAs and cell phones are so easily lost, the fact that they often have Bluetooth and other types of

Continued on page 24

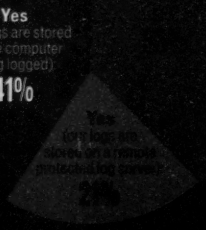
How many computer security incidents has your organization had within the past 12 months?

Base: 1,811 respondents



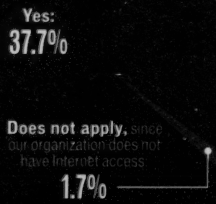
Does your organization have computer security logging activated?

Base: 2,018 respondents



Does your organization have Web site logging activated?

Base: 1,995 respondents



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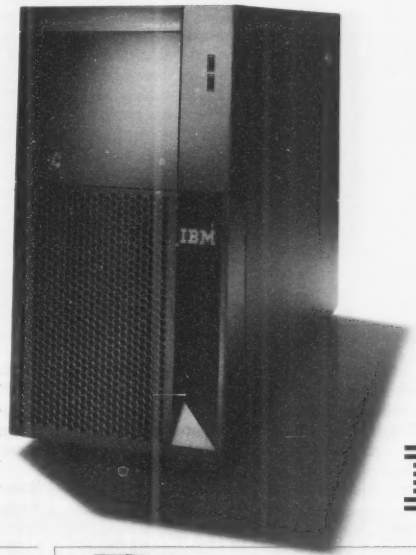

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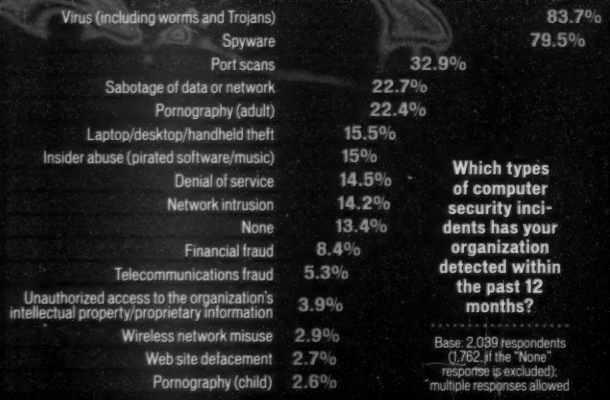
Virus (including worms and Trojans) 83.7%
Spyware 79.5%
Port scans 32.9%
Sabotage of data or network 22.7%
Pornography (adult) 22.4%
Laptop/desktop/handheld theft 15.5%
Insider abuse (pirated software/music) 15%
Denial of service 14.5%
Network intrusion 14.2%
None 13.4%
Financial fraud 8.4%
Telecommunications fraud 5.3%
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Wireless network misuse 2.9%
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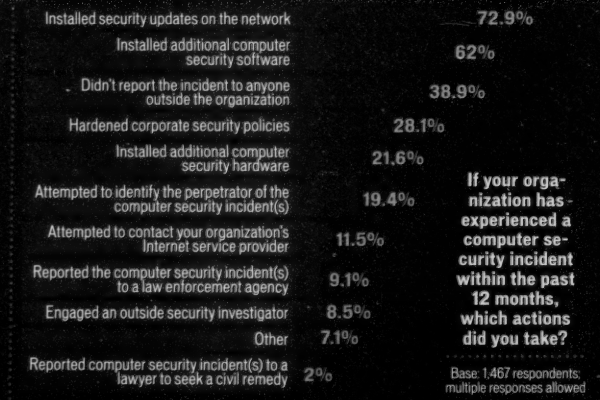
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In more technical terms, that means it will be possible to store about 230 gigabits per square inch, or up to 20GB, on a 1-in. microdrive.

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The increased capacity and miniaturization allowed for a host of new applications — high-quality video and audio in portable containers, as well as laptops that allowed people to work for extended periods.

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The strength of the magnetized area has to be great enough so that the head could sense it and the signal processing software in the disk package could determine the direction of the magnetization.

If the strength of the magnetization were to fall below some threshold, the head would not be able to sense it, and/or the signal processing software would not be able to figure out whether the bit was a one or a zero.

The sizes involved in this longitudinal arrangement were progressively shrunk to realize greater bit density. The size of each magnetized area was shrunk down to about the smallest size feasible.

Each magnetized area is composed of tiny magnetic regions called grains. When all the grains line up in one direction, the magnetization of the whole region is strong in that direction. If some of the grains flip their polarity, the magnetization of the whole region is weakened, and a hard-drive read head may have more difficulty reading it. If all the grains, or some large number of them, were to flip, the polarity would be reversed.

It takes about 100 grains to make a magnetized region reliable for recording digital ones and zeroes. Fewer than that, and a drive becomes prone to errors.

At small-enough sizes of magnetic regions and magnetic grains, the ambient heat energy in the hard drive can be enough to make a grain flip its polarity. This is called the superparamagnetic effect, and it limits how small magnetic recording media can be.

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The problem was that some other aspects of the technological mix required to read and write perpendicular magnetic regions caused a loss of reliability. The read and write head for perpendicular recording requires a "soft" magnetic underlayer beneath the magnetic film where the digital ones and zeroes are recorded.

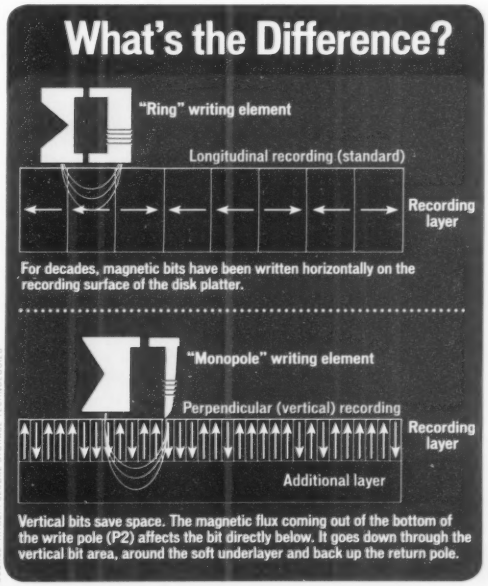
This underlayer is said to be magnetically soft because it is easily magnetized in one direction or another. That property allows it to work with a perpendicular read/write head to magnetize regions vertically in the magnetic film above.

New techniques have allowed manufacturers to make the soft underlayer thinner than was previously possible and less easily affected by stray magnetic fields, which could corrupt the information in the magnetic film above. Now that these problems have been overcome, recording data perpendicularly has become feasible.

Manufacturers such as Hitachi Global Storage Technologies, Seagate Technology LLC, Toshiba Corp. and Maxtor Corp. are moving toward or have already brought perpendicular drives to market.

One additional benefit of perpendicular recording is that it may be possible to shrink the regions that need to be magnetized to record digital ones and zeroes. Perpendicular read/write heads have a stronger magnetic field than those that are used for longitudinal recording. Therefore, it is possible to use magnetic films that have a higher magnetic coercivity, which means it's harder to change the orientation of a magnetic grain. The heat energy required to flip a grain has to be higher, and the superparamagnetic effect for these materials is limiting at smaller sizes. Reliable magnetic regions may, therefore, not require as many as 100 grains.

Research is ongoing in other methods to shrink the size of magnetic regions. Patterning magnetic film may be the next advance, in which lasers are used to mill the magnetic film and isolate magnetic grains in such a way that very few are required in order to reliably record digital ones and zeroes. Research papers project bit densities on patterned hard disks in the range of 300 gigabits per square inch.


What's the Difference?
"Ring" writing element
Longitudinal recording (standard)
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"Monopole" writing element
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Additional layer
Vertical bits save space. The magnetic flux coming out of the bottom of the write pole (P2) affects the bit directly below. It goes down through the vertical bit area, around the soft underlayer and back up the return pole.

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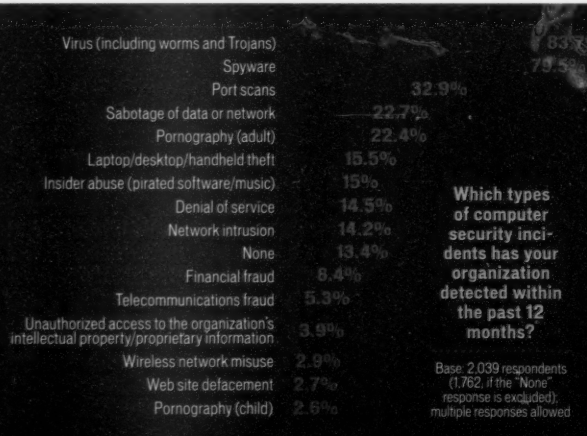
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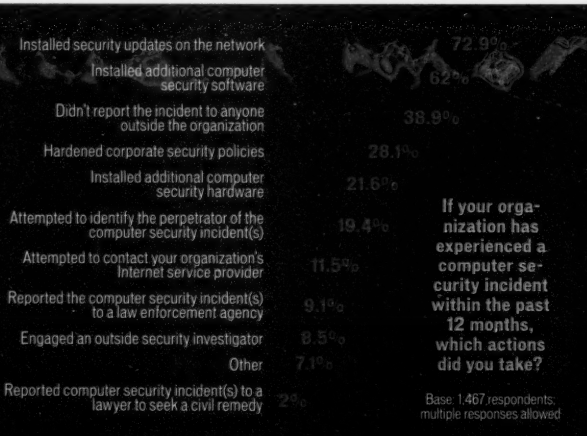
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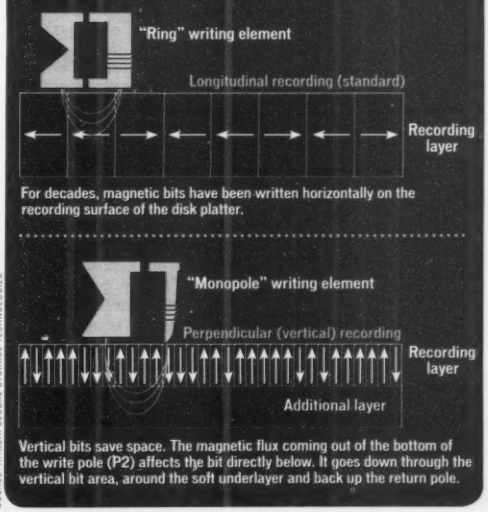

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SOURCE: HITACHI GLOBAL STORAGE TECHNOLOGIES

No Data Left Behind: Dealing With Disposal

Government mandates mean you can't just donate old computer hardware to a worthy nonprofit. By C.J. Kelly

SECURITY MANAGER'S JOURNAL

I LOVE DISPOSING of problems. The other day, I was presented with a disposal problem.

As I was walking down the hall, I noticed a lot of old computer equipment sitting next to a pile of trash. My first thought was that some of the data that my state agency is charged with protecting under various statutes was about to become available to anyone who happened to pick through our trash.

A closer inspection revealed that there were no computer disks or other media in the pile. No data was about to leak out through our Dumpster. Other things could, though, and that detoured me from data security matters for a while as I pursued the question of proper disposal of hazardous waste.

As it turns out, our IT employees didn't really know what to do with old computer equipment, so they put it out for the maintenance people to pick up. The people in charge of the management of our building were clueless about how to handle hazardous materials. They told me our old equipment usually ended up in the parking lot waste bin or was taken home by members of the cleaning staff who thought they could refurbish it for their own use or resale.

That wasn't acceptable. I directed a member of my staff to discover what methods were available in our region for the proper disposal of computer equipment. He found out that a local computer supply store provided a disposal service in conjunction with Dell. There was only a small fee to cover the cost of boxing up the equipment. Armed with that new information, I wrote a procedure to cover hazmat disposal. Problem solved.

Ah, but what about those cases when we do have to dispose of disks and other media? I started thinking about all those computer, server and storage device disks that are collecting around here. The agency is in the middle of a desktop upgrade project, which means we're retiring hundreds of computers as well as a number of servers that are out of warranty.

In the old days, you could call a nonprofit organization that would gladly take your old computers. These days, it's a little more complicated, since we aren't allowed to transfer hard disks that could contain people's personal information to any other party. Not too many organizations want your equipment sans the hard disks.

> We fantasized about taking the hard disks out into an open field and smashing them with a hammer, setting them on fire and toasting marshmallows over the blaze.

Meanwhile, the hard disks are stacking up. I was sure we could find a low-cost solution, get the necessary approvals and solve the problem.

Plenty of commercial companies could provide the service we need. I found one called PC Disposal that has a program appropriately named Secure Plus Risk Management Disposal. The company will ship you "secure packing equipment," and then it will pick up your equipment, wipe your hard drives with Department of Defense-standardized methods and dispose of them according to state and federal guidelines. If you want to prep your equipment for resale or donation, it will help you do that. Importantly for us, the service is guaranteed to be HIPAA-compliant.

But here's what caught my eye: The company has a $1 million service guarantee that says, "If we fail to complete the services listed on your certificate of disposal and your hard drive is discovered with recoverable data still on it, your company will receive a check for $1,000,000." Great marketing.

Proper Sanitization

Still, I had to chuckle because I know that $1 million in no way would make up for having protected health data end up in the wrong hands. Besides, I realized that we could handle the problem internally without spending a ton of money. The key to data disposal is proper disk sanitization.

I happened to be downloading material from the National Institute of Standards and Technology's Web site on an unrelated matter when I ran across a publication titled "Guidelines for Media Sanitization" (NIST Special Publication 800-88). A quick glance through the 33-page document showed me that it contained pretty high-level stuff. The guidelines include a decision matrix for determining how to destroy various media and components. For example, data has to be manually deleted from handhelds, then you have to perform a manufacturer's hard reset, and finally you must incinerate, shred and pulverize the unit. That's kind of what we had in mind for our hard disks.

We fantasized about taking the hard disks out into an open field and smashing them with a hammer, setting them on fire and toasting marshmallows over the blaze. It sounds like a good team-building exercise. But we're in the middle of summertime heat, and the local fire department probably wouldn't appreciate our electronics bonfire.

Back to reality. We'll need to write a policy and procedure, as well as acquire the software we'll need for effective data deletion. Sysinternals, a part of Winternals, which was recently acquired by Microsoft, provides a free, DOD-compliant secure-delete program called SDelete that should do the job. After we remove the data, we can incinerate, shred and pulverize the hardware or just donate the drives to a nonprofit organization.

I think the important thing is to realize that data is precious and must be handled properly. But even if we don't recognize that fact, we're all increasingly subject to state and federal statutes that mean we have to take data disposal seriously. We just can't ignore the problem anymore. ▸

WHAT DO YOU THINK?

This week's journal is written by a real security manager, "C.J. Kelly," whose name and employer have been disguised for obvious reasons. Contact her at mscjkelly@yahoo.com or join the discussions in our security blogs: **computerworld.com/blogs/security**

C.J. reads all her e-mail but can't personally respond to all of it. Check her blog for her question of the day.

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SECURITY LOG

Spike Seen in SQL Injection Attacks

A company that monitors security at 1,300 organizations reports that its clients' databases are experiencing more than 8,000 SQL injection attacks per day. The company, SecureWorks Inc. in Atlanta, says that is up from an average of 100 to 200 exploits per day in the first three months of 2006. Attacks were detected coming from computers in Russia, China, Brazil, Hungary and Korea. The attacks are specifically crafted for the target organizations.

Effort Aims to End Malware Confusion

The antivirus industry has once again proposed a Common Malware Enumeration (CME) program as a means of preventing confusion over the naming of major virus and worm outbreaks. The program was first proposed last fall by the U.S. Computer Emergency Readiness Team. The hope is that identifying malware with nonsequential CME numbers will avoid the confusion of having several names assigned to a single piece of malicious code.

Some Can Relax Security Spending

Gartner Inc. analyst Rich Mogull said at a recent security summit that organizations that have implemented security technology effectively can safely scale back security spending to between 3% and 4% of their IT budgets by 2008 so they can focus on new threats. Those that have skimped on security spending in the past and are inefficient may need to spend more than 8% of their IT budgets on security and will still be investing aggressively for the next few years, he said.

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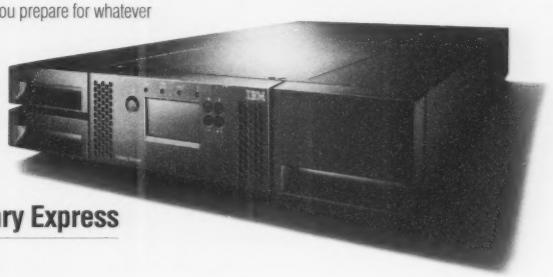

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BRIEFS

IBM Announces Net Security App

IBM has unveiled IBM Tivoli Security Operations Manager, which incorporates technology from IBM's acquisition of Micromuse Inc. The product expands on the capabilities of IBM's NeuSecure product, helping secure networks by automatically detecting and managing security threats, according to IBM. It is available now starting at $75,000 for software that enables 20 servers or devices.

StrataVia Releases Database Admin Tool

StrataVia Corp. has released Version 3 of Data Palette, its database administration software. The Denver-based company, until recently known as ExtraQuest Corp., said Data Palette, formerly known as RoboDoc, works with Microsoft SQL Server, Oracle and IBM DB2. The tool helps define the best practices for performing simple or complex database activities and can standardize or automate them to save database administrators time and money, said the company. Data Palette 3.0 is available now and costs about $6,000 per database. It can run in Unix, Solaris, Windows and Linux environments.

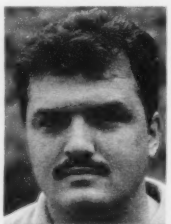
Arcosoft Launches VoIP Call Recorder

Arcosoft Inc. has introduced VONaLink SoloRecord, software that can record voice-over-IP calls. The Richmond Hill, Ontario-based company says VONaLink can work with any VoIP phone system based on the open Session Initiation Protocol standard, such as that of Vonage Holdings Corp., to record phone calls. Calls are recorded as stereo WAV or MP3 format files. An inaudible watermark can be added to the recording for later verification that the file has not been changed. The software runs on Windows XP 2003 and 2000. It costs $99 per user. Evaluation copies can be downloaded at *www.vonalink.com*.

DOUGLAS SCHWEITZER

Learn the Science of Compliance to Survive

GOVERNMENT REGULATIONS have increased dramatically in response to an array of unsettling events — terrorist activities, big-business financial misdealings and scandals, and dangerous lapses in the safe-guarding of consumer data. While industry regulations and government legislation are not welcomed across the board, compliance is nevertheless mandatory, and the potential cost of noncompliance rises daily.



DOUGLAS SCHWEITZER is a freelance writer and Internet security specialist in Nesconset, N.Y. He can be reached at **dougsak@juno.com**.

This is where enterprise IT operations will have to step up to the plate and lead the business side of their companies. And in order to succeed in that compliance, the best approach is a multidisciplinary, streamlined, comprehensive base of operations.

Concerned with data privacy and security, new federal and state regulations were developed to encourage corporate accountability. Not only is data required to be retained for a specific time period, but it is also to be done in a secure fashion, as per legislation like the Gramm-Leach-Bliley Act, the Health Insurance Portability and Accountability Act, the Sarbanes-Oxley Act, the Federal Information Security Management Act and California's SB 1386.

HIPAA is perhaps the most renowned, because it has required the most from IT departments responsible for securing electronic patient information, some of the most private data around. Gramm-Leach-Bliley is notable because it requires banks and financial services firms (again, their IT departments) to protect consumer financial data. Sarbanes-Oxley requires public companies to support their financial statements with proof that they have adequate procedures and controls.

New accountability regulations are forcing businesses (and their executives) to ensure that not only is company data accurate, but also that consumer data is adequately secured.

With the growing number of regulations, those in charge of privacy and security compliance need comprehensive and practical information about the issues they must address — and it's often up to them to find that information. Compliance with regulatory requirements means that businesses have to dedicate personnel to the task, in effect maintaining a staff just for that purpose. The extent of the hours to be committed is especially evident, for instance, in the portion of the Sarbanes-Oxley Act that requires that records of electronic communications be tamperproof and that electronic storage media be kept in nonrewritable, nonerasable formats. Here, electronic communications includes not only e-mail, but instant messaging and some phone communications as well.

In addition, Sarbanes-Oxley mandates that internal controls and financial reporting procedures be evaluated annually to see if they're adequate. The amount of controlled data is often massive, and logging, archiving and being able to produce communications upon request is labor-intensive and costly.

Another important compliance issue stems from the fact that some companies are concerned that they're spending too much time wrestling with the details and appearance of compliance and not spending enough time on security in general. A recent Ernst & Young report suggests that companies are failing to look into vulnerability issues related to endpoint security for systems such as laptops, wireless networks and Internet telephony — a dangerous development with potentially disastrous consequences.

The National Institute of Standards and Technology offers an introductory resource guide for implementing HIPAA, which can be found at *http://csrc.nist.gov/publications/nistpubs/800-66/SP800-66.pdf*. The Federal Trade Commission offers advice for complying with the financial privacy requirements of Gramm-Leach-Bliley at *www.ftc.gov/bcp/conline/pubs/buspubs/glbshort.htm*. A growing number of consultancies have arisen that do nothing but guide companies through the thicket of compliance.

There are numerous software tools and hardware appliances available to help businesses manage each step of the compliance process. Mounting regulatory pressure has created several thriving markets for categories such as compliance monitoring and management software and unified threat-prevention systems, in addition to giving a boost to plenty of security and auditing tools that have been around for a long time.

Where once compliance was simply important, in today's business climate, a slip outside the rules can have consequences that range from disasterous to fatal for a company. Organizations must also be able to prove they're compliant in case the feds come knocking at their doors. The bottom line: While regulatory compliance and other issues may seem insurmountable — or at least overwhelming — failure to meet requirements and mandates can and will result in stiff penalties. There's no choice but to bite the bullet and make use of the tools that are out there. ▸

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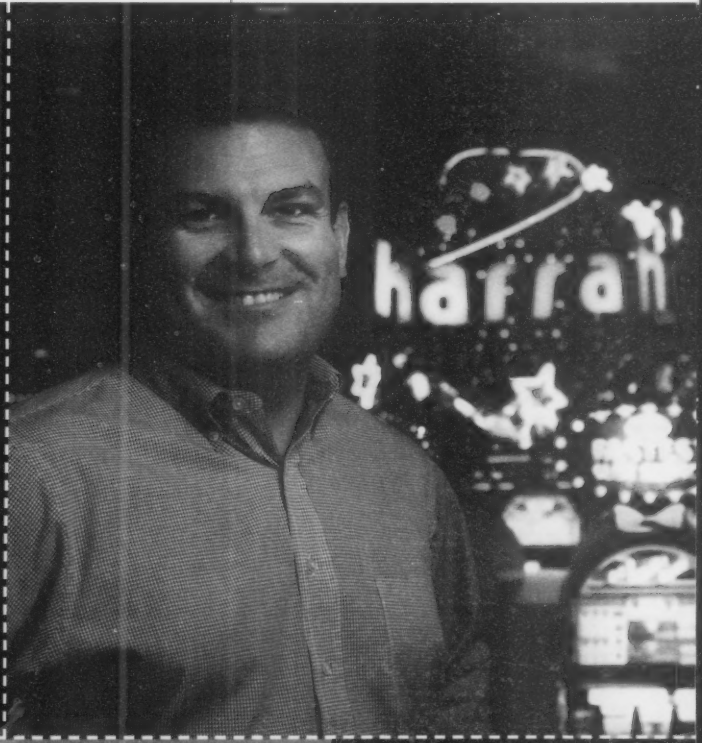
Office Space Reconsidered
Corporate executives are beginning to embrace a new model of how work spaces should look and perform. It's up to IT to make such changes possible, and workplace management systems can help. **PAGE 32**

ADVICE
Managers' Forum
Paul Glen provides a holistic framework for a reader's least-favorite task: performance reviews. Plus, he suggests a way to stop business customers from poaching the services of your IT people. **PAGE 34**

OPINION
The True Cost of Off-the-Shelf
The tail is wagging the dog in many of today's IT shops, says Paul M. Ingevaldson. If you can't follow through on a strategic initiative because your packaged software won't let you, then you paid more for it than you think. **PAGE 36**

Measuring

Even top IT organizations struggle to find the right metrics to gauge IT's value to the business.



MARTIN LEPAGE/ALLIANCE

BY THOMAS HOFFMAN

TIM STANLEY and the IT organization at Harrah's Entertainment Inc. in Las Vegas have won many awards for their world-class IT operation. Harrah's IT department has constantly monitored hundreds of details such as system uptime and project deliverables to track its performance over the past five years. It even links the success of its IT objectives to the company's earnings-per-share growth.

So you'd think that by now, Harrah's has pretty much nailed which IT metrics it needs to track, right? Think again. "I'm literally holding in my hand a revised list of metrics and scorecards for this year, and I continue to nosh through this with my team, year after year," says Stanley, senior vice president and CIO at Harrah's.

Changes in the business and competitive landscapes force Harrah's IT department to regularly reassesses which key performance indicators to track. "We're constantly asking ourselves whether we're measuring the right things," says Stanley.

He isn't alone. IT leaders at companies such as DHL Express, Cendant Hotel Group and Kaiser Permanente say they continually wrestle with what they're measuring to gauge the effectiveness of their IT organizations. But by focusing on what business leaders are looking for, they're getting a lot more sophisticated at what to measure — and what not to.

Beyond Rote

Best-in-class IT organizations have gone beyond rote metrics such as system uptime and help desk problem resolution. Some IT shops on Wall Street, for example, are studying things like how many stock trades or customers they're able to support for each IT dollar they spend, says Howard Rubin, an analyst at Gartner Inc.

But these kinds of metrics are much more difficult to use than the traditional

> We're constantly asking ourselves whether we're measuring the right things.
>
> **TIM STANLEY**, SENIOR VICE PRESIDENT AND CIO, HARRAH'S ENTERTAINMENT

IT time and transaction measures. One of the big challenges that many IT leaders face in developing effective metrics, says Rubin, is determining which activities are under the auspices of the IT department. For instance, some user departments at financial services companies have their own LAN administrators who are outside the purview of the IT organization, says Rubin.

"There's IT everywhere, not just in the IT department but in bank branches and on the plant floor," he says. The business activity supported by IT "drifts back and forth like the eye on the head of a flounder," he adds.

Metrics get even more complicated as IT organizations move to service-oriented architectures, explains Stanley. "In a classical IT world, you measure a particular application," he says. "But when these systems are all highly integrated, what do you actually track? The platform? The services?"

Among its current measurements, Harrah's IT department is gauging how much investments in IT and business projects are helping the hospitality and gaming company to meet its business objectives.

"So let's say we're targeting 15% earnings-per-share growth and tracking that to the right IT projects, customer satisfaction with those projects, etc.," says Stanley. "Over the past three or four years, I can actually show the return on invested capital to the business results and sales growth."

Some companies are also tracking how effectively technology is supporting external customers. At DHL Express, the IT organization monitors customers' ability to use the company's Web site to track and trace package shipments, says Simon Bentley, interim CIO of U.S. and Canada DHL Express business IT in Scottsdale, Ariz.

And that's just the beginning. "In terms of IT operations, we measure just about anything you ever heard of," says Bentley.

Bucking Tradition

Still, many IT organizations continue to struggle with mapping their performance against business outcomes. "IT has traditionally measured itself in very technical terms that don't mean much to people outside of IT," says Craig Symons, an analyst at Forrester Research Inc. These include statistics about availability and costs per megabyte of computing.

Business leaders agree. "There's been a huge disconnect between what business people care about — i.e., capabilities delivered — and what IT people care about," such as the percentage of projects that are being delivered on time and within budget, says Christopher Lochhead, chief marketing officer at Mercury Interactive Corp., a Mountain View, Calif.-based provider of business software.

But even conventional technical measurements often have a direct bearing on business outcomes. "If our systems aren't up, we aren't generating revenue," says Pete Gibson, vice president of IT infrastructure and operations at Phoenix-based Cendant Hotel Group, which operates 6,400 hotels.

It's up to IT leaders to translate those metrics into tangible business terms. "Business and IT people alike have a hard time making percentages feel real," says Stanley. "You don't feel a percentage of systems uptime. You feel the business or customer impact of an outage."

To address that, Harrah's is creating new metrics that will quantify the negative effect that a system outage has on revenue or other aspects of the company's business, says Stanley.

As companies have become more sophisticated about which metrics to evaluate, they've also determined which ones to drop. For example, until a few years ago, DHL Express' IT organization used to track the number of e-mail messages that employees were receiving to determine if there was a link between developing effective ideas and communication. "It turned out to be a pointless exercise," says Bentley. "We're not afraid to abandon metrics."

That flexible attitude has also led the IT group at DHL Express to experiment with more sophisticated measurements. Instead of just assessing the number of IT projects that are delivered on time, within budget and within scope, IT also measures what the business cares most about: the percentage of projects that have met their business objectives, says Bentley.

IT executives have also been able to use metrics to determine which IT projects to shelve. For instance, Gibson and other IT and business executives at Cendant recently put the kibosh on a three-month-old e-commerce project after metrics indicated that it wasn't going to deliver a substantial enough return on investment.

The Business View

For all the emphasis these IT leaders are placing on IT metrics, there's a lot of variation in how often senior business leaders want to review them. At Harrah's, Stanley and his team use their metrics to put together a quarterly operating report with project updates and IT spending summaries that senior executives can dive into.

At Hannaford Bros. Co., interest among senior executives in IT metrics depends on the project being measured, says CIO Bill Homa. For example, top managers at the Scarborough, Maine-based grocer are closely tracking the rollout of a task management system to its 140 stores that's intended to provide managers with a clear message about which operations to focus on each day, says Homa.

At Kaiser Permanente, metrics focus on how the IT infrastructure relates to business costs. The health care organization's IT group, called KP-IT, has created a set of "cost pools" within its data center services. If one of the health care units is running a call center application, for example, KP-IT can measure the percentage of a server's load that's being consumed by the application and the costs that are placed on that business unit as a result, says Michael Blake, vice president and chief financial officer at KP-IT in Oakland, Calif. "We have much more educated conversations with business leaders than we had before," says Blake.

"There's much better delineation [of those costs] than there was two years ago," Blake adds. "So instead of saying, 'I can't understand it,' you can get to the IT price, and the business can figure out how to control the price."

Aidan Collins, a partner at PricewaterhouseCoopers who works with KP-IT, calls the group's approach "an IT view of the world with financial transparency so you can talk with business executives about true life-cycle costs and true accountability within IT services."

Like Harrah's Stanley, Bentley says the metrics that the DHL Express IT organization tracks continue to evolve and mature over time. "When you start off, you're measuring the easy things," says Bentley. "Then you start linking to IT's impact on the business."

Homa puts a more personal spin on it: "The best metric is that I'm still here after 10 years."

Metrics to Ponder

Want to move beyond traditional IT measures that don't mean much to your business partners? Here are some sample metrics from Gartner analyst Howard Rubin.

CURRENT STATE
- IT spending as a percentage of revenue
- IT spending as a percentage of operating expense
- IT head count as a percentage of total head count

AGILITY
- Ratio of percentage change in revenue to percentage change in IT spending, year over year
- Ratio of percentage change in operating expense to percentage change in IT spending, year over year
- Ratio of percentage change in business head count to percentage change in IT head count, year over year

PORTFOLIO
Percentage of IT spending to:
- Run the business
- Grow the business
- Transform the business (innovation)

SERVICE DELIVERY
- Percentage of end-to-end commitments to users met
- Business cost of failure to meet end-to-end commitments

CUSTOMER
Customer satisfaction with:
- Operations
- Development and support processes
- Personnel

EMPLOYEES
- Employee satisfaction
- Employee/key employee turnover
- Compensation costs
- Percentage of employees on-/offshore
- Percentage of contractors on-/offshore

INFRASTRUCTURE
- Unit costs of all systems
- Market basket cost (unit cost for each platform multiplied by platform volume)
- Reliability/availability end to end and by system

RISK
- Impact of virus
- Impact of security breach
- Impact of compliance failure

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Office Space {RECONSIDERED}

IT has changed work; now it's up to IT to set workers free.

By Mary K. Pratt

New Style, New Digs

CHRIS KNIOLA wants to radically redesign his company's call centers. Instead of eight-pack cubicles — the sterile setup of four desks in two rows, separated by low walls and equipped with standard desktop computers and phones — Kniola envisions a free-flowing space that offers customer service reps everything from comfortable chairs to garden-side work spots. "You walk into the office, the security desk gives you your computer, and you go sit wherever you want," he says.

Kniola, project manager of facility technology at a large financial services company near Chicago, says the evolution of technology is turning such visions into reality. Laptops, widespread wireless connectivity, voice-over-IP and increased bandwidth could create this call center of the future today, he says.

Corporate executives, spurred on by facility managers like Kniola, are beginning to embrace a new model of how the workplace should look and perform. They're endorsing plans that replace desks and offices with collaborative work spaces and "touchdown" areas for remote employees.

As an IT leader, you'd better be ready, because it will be up to you to make these changes possible.

The New Paradigm

"Work is what you do; it's not where you go anymore," says Larry Barkley, former CIO of CoreNet Global Inc., an Atlanta-based association for corporate real estate professionals and those in related fields.

He says that because IT's plate is full with other priorities, facilities and human resources people have been driving much of this change so far. "From the IT perspective, [the new workplace] is making their jobs more difficult, way more complicated," says Barkley, who is now senior vice president of consulting services at Computerized Facility Integration LLC, a Southfield, Mich.-based consulting company.

But like it or not, CIOs will have to integrate more and more mobile technology, contend with the increased security concerns that accompany wireless and remote access, and support workers at remote locales, Barkley says. They will also have to support employees who drop into the office on both regular and irregular schedules and need a place to work.

Globalization and the increased competition it engenders are pushing companies to look for every advantage, and more efficient work space can increase worker productivity and reduce real estate costs — the second-highest expense for most companies, after employee compensation.

As a result, the standard office design — rows of cubicles bordered by executive offices — is making way for common work areas and more collaborative spaces where workers of all levels, including executives, can mix.

If your company doesn't look like that yet, it soon will, Barkley says. "How quickly will it change? Probably as quickly as management recognizes that they damn well better change," he says.

There are obstacles to change, however, and the toughest are cultural. Some managers are still possessive about private offices and keeping their staffers together, says Michael Bell, an analyst at Gartner Inc. in Stamford, Conn. But for enlightened companies, he says, "the office as a symbol of rank is gone."

Ready or Not

Change is happening even if companies haven't planned for it. More people are working on the road, from hotels and from their homes, Bell says, which raises the question, "Why do we need all this space?"

To the rescue come integrated workplace management systems, which have become more sophisticated in recent years, allowing facilities managers to more easily analyze needs and reconfigure space. "These systems are shining a light," Bell says.

But it's a light some CIOs haven't seen. Bell, Barkley and others say CIOs need to work more closely with HR and facilities executives to successfully transform the traditional workplace into a more flexible configuration.

That's what's happening at Capital One Financial Corp. in McLean, Va. Several thousand of the company's 21,000 employees work in flexible offices developed under its two-year-old Future of Work (FOW) program. The company refers to work space and workers with one of four categories: resident, anchor, mobile and executive.

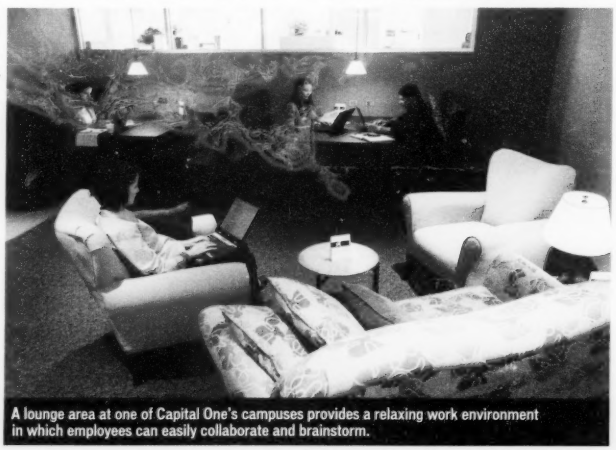
Residents, some of whom have laptops so they can also work at home or from the road, work at assigned desks

EMBRACING CHANGE

Capital One's Future of Work initiative has met with approval throughout the company. Buildings that formerly held 600 people can now accommodate 1,200, and an internal study showed that 87% of employees prefer their new environment to the old one. Other findings include the following:

- **A 41% increase in overall workplace satisfaction.**
- **A 53% increase in employees who feel that the workplace enhances group productivity.**
- **A 31% reduction in time required to get input from peers.**
- **A 24% reduction in time required to get input from managers.**

– MARY K. PRATT



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Office Space {RECONSIDERED}

IT has changed work; now it's up to IT to set workers free.

By Mary K. Pratt

New Style, New Digs

CHRIS KNIOLA wants to radically redesign his company's call centers. Instead of eight-pack cubicles — the sterile setup of four desks in two rows, separated by low walls and equipped with standard desktop computers and phones — Kniola envisions a free-flowing space that offers customer service reps everything from comfortable chairs to garden-side work spots. "You walk into the office, the security desk gives you your computer, and you go sit wherever you want," he says.

Kniola, project manager of facility technology at a large financial services company near Chicago, says the evolution of technology is turning such visions into reality. Laptops, widespread wireless connectivity, voice-over-IP and increased bandwidth could create this call center of the future today, he says.

Corporate executives, spurred on by facility managers like Kniola, are beginning to embrace a new model of how the workplace should look and perform. They're endorsing plans that replace desks and offices with collaborative work spaces and "touchdown" areas for remote employees.

As an IT leader, you'd better be ready, because it will be up to you to make these changes possible.

The New Paradigm

"Work is what you do; it's not where you go anymore," says Larry Barkley, former CIO of CoreNet Global Inc., an Atlanta-based association for corporate real estate professionals and those in related fields.

He says that because IT's plate is full with other priorities, facilities and human resources people have been driving much of this change so far. "From the IT perspective, [the new workplace] is making their jobs more difficult, way more complicated," says Barkley, who is now senior vice president of consulting services at Computerized Facility Integration LLC, a Southfield, Mich.-based consulting company.

But like it or not, CIOs will have to integrate more and more mobile technology, contend with the increased security concerns that accompany wireless and remote access, and support workers at remote locales, Barkley says. They will also have to support employees who drop into the office on both regular and irregular schedules and need a place to work.

Globalization and the increased competition it engenders are pushing companies to look for every advantage, and more efficient work space can increase worker productivity and reduce real estate costs — the second-highest expense for most companies, after employee compensation.

As a result, the standard office design — rows of cubicles bordered by executive offices — is making way for common work areas and more collaborative spaces where workers of all levels, including executives, can mix.

If your company doesn't look like that yet, it soon will, Barkley says. "How quickly will it change? Probably as quickly as management recognizes that they damn well better change," he says.

There are obstacles to change, however, and the toughest are cultural. Some managers are still possessive about private offices and keeping their staffers together, says Michael Bell, an analyst at Gartner Inc. in Stamford, Conn. But for enlightened companies, he says, "the office as a symbol of rank is gone."

Ready or Not

Change is happening even if companies haven't planned for it. More people are working on the road, from hotels and from their homes, Bell says, which raises the question, "Why do we need all this space?"

To the rescue come integrated workplace management systems, which have become more sophisticated in recent years, allowing facilities managers to more easily analyze needs and reconfigure space. "These systems are shining a light," Bell says.

But it's a light some CIOs haven't seen. Bell, Barkley and others say CIOs need to work more closely with HR and facilities executives to successfully transform the traditional workplace into a more flexible configuration.

That's what's happening at Capital One Financial Corp. in McLean, Va. Several thousand of the company's 21,000 employees work in flexible offices developed under its two-year-old Future of Work (FOW) program. The company refers to work space and workers with one of four categories: resident, anchor, mobile and executive.

Residents, some of whom have laptops so they can also work at home or from the road, work at assigned desks

EMBRACING CHANGE

Capital One's Future of Work initiative has met with approval throughout the company. Buildings that formerly held 600 people can now accommodate 1,200, and an internal study showed that 87% of employees prefer their new environment to the old one. Other findings include the following:

A 41% increase in overall workplace satisfaction.

A 53% increase in employees who feel that the workplace enhances group productivity.

A 31% reduction in time required to get input from peers.

A 24% reduction in time required to get input from managers.

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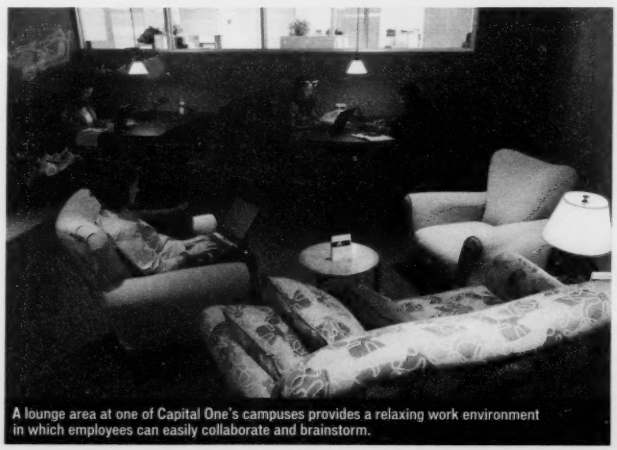

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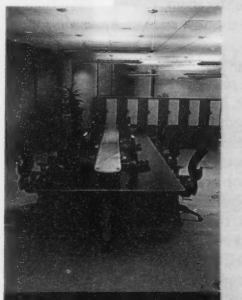

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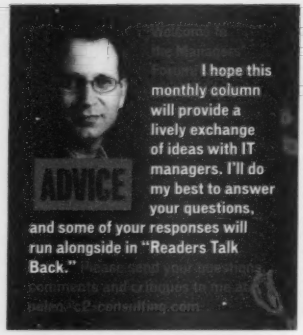
MANAGERS' FORUM

WITH PAUL GLEN



I hope this monthly column will provide a lively exchange of ideas with IT managers. I'll do my best to answer your questions, and some of your responses will run alongside in "Readers Talk Back."

Q Twice a year, I have to review my staff of programmers and network engineers, and it has become a daunting task. How do I measure performance of these workers, especially when they're also required to serve in a support role when problems arise, thus causing project dates to slip? What key performance indicators should I use? How do I set goals for them?

It's great that you're doing biannual reviews. Good reviews can be a help for your staffers and an opportunity for you to calibrate their performance and career plans. There are few better opportunities to get to know your people as individuals and for them to get to know more about your specific expectations about not only their deliverables but also their career progress.

Unfortunately, reviews are frequently implemented poorly, undermining their usefulness and making a mockery of what could be a fabulous tool.

For example, one of my biggest gripes about reviews is that most companies do them for everyone at the same time. I don't know who came up with this harebrained idea, but it's probably done for the convenience of the human resources department. It's surely not for the benefit of anyone else involved. Twice a year, everyone in the department is forced to go through a massive spasm of paperwork. When you've got to fill out a 20-page questionnaire about each of the 10 people you work with under a short deadline, it's impossible to really think carefully about each one and to give reasonable feedback.

I'm much more fond of spreading out reviews over time. If you do one or two a month, you can give each person the attention he deserves. Why not do them on the half-anniversaries of their employment dates?

The other danger, and one that I think that you hint at in your question, is focusing a review too tightly on a specific project or set of deliverables rather than more holistically on the person. You should be reviewing the employee and his performance, not the project.

The short and direct answer to your question is that there is no one number you can use like a single letter grade for your people if you want the information to be useful. Performance is just too complex to capture in two or three bits.

In my book *Leading Geeks* (Jossey-Bass, 2002), there's a whole chapter on the 12 ways that geeks add value to an organization, and I like to use that list as a starting point for selecting criteria for a review. Obviously, in a short column, I can't explain them all, but I'll still share the list:

1. Technical competence
2. Personal productivity
3. Juggling multiple tasks simultaneously
4. Describing the business context of technical work
5. Forging compromises between business and technical constraints
6. Managing client relationships
7. Managing technical teams
8. Playing positive politics
9. Expanding client relationships
10. Working through others to make others productive
11. Managing ambiguity
12. Managing time horizons

These are more or less arranged in order of increasing sophistication. Junior staffers would probably be measured on only the first four, while more senior staffers would be expected to show competence in more.

Measure their progress based on performance within individual categories and on the number of categories in which they are displaying a base of awareness and competence. In each category, set one or more key performance indicators for review, and develop a rating scale ranging from complete unawareness to modest success to complete mastery.

You'll notice that the types of measures you asked about are really clustered in Categories 2 and 3. I'd suggest that you judge people's productivity and ability to juggle multiple commitments separately. An individual may do a great job producing but a poor job at setting priorities to balance commitments.

I'd also suggest that you develop a set of criteria based around a broader vision of how your staff delivers value. This will give you, them and the organization the best chance of getting the most benefit from your investment in performance reviews.

Q How do I deal with people who want me to help out with their projects using noncapital hours so their budgets look good? The problem is that when budget time comes around, we can never justify additional staff because it's all "support" hours.

When you've got two pools of money — one that looks like a client charge and the other that doesn't get charged back — your clients will try to go to the free feed bucket every time, even if that means that their bucket will be the same size or smaller next year. We're a shortsighted species. (Just watch the stock market report if you doubt me.)

You may have to just start charging them for support hours, too. That way, it's not a question of their paying, but out of which pocket.

READERS TALK BACK

More on Conflict Management

I was once involved in an ongoing conflict with another senior programmer. Although now retired, I am still disappointed over the way the leadership chain handled it.

The battle went on for six months. I asked for help and was told that I would get it. Then they sat on their hands and did nothing. It was a thoroughly miserable, humiliating experience. Ultimately, I was unable to deal with it. The results were not career-enhancing.

It is difficult to fathom a theory that benign neglect is an effective way to handle problems. Common sense and experience should tell us that unless something changes, the problem will continue. That almost always means that corrective action is required. To fail to act is to turn one's back on the problem.

Why is this hard? Leaders are trained to be responsible and decisive. They are trained to exercise personal initiative. Yet, instead of doing their jobs, they conjure up ingenious excuses to justify not doing it. About the only way to get them to budge is when they are personally affected.

I have observed this do-nothing style of leadership for three decades. It's definitely not a recent trend. W. R.

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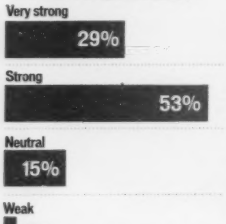
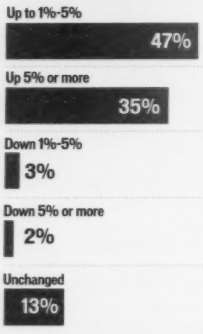
QUICK HITS

CIO Confidence - Q2

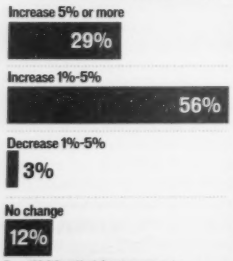
Which of the following best describes the current business climate for your industry?



How does your current IT spending compare with your IT spending at this time last year?



How will your IT spending three quarters from now compare with your current IT spending?



Base: 100 CIOs at North American companies, May and June 2006

SOURCE: FORRESTER RESEARCH INC., CAMBRIDGE, MASS.

PAUL M. INGEVALDSON

The True Cost Of Off-the-Shelf

IN THE EARLY DAYS of IT, we would never suggest to users that they should adjust their operations to the requirements of the software that we were developing. It was always the other way around. We wrote software so that it worked exactly as the users requested. After all, the users were the clients, and IT was trying to automate their departments, not make life easier for itself.

Somewhere along the way, this whole theory changed.

PAUL M. INGEVALDSON retired as CIO at Ace Hardware Corp. in 2004 after 40 years in the IT business. Contact him at **ingepl@aol.com.**

It may have started with the rapidly escalating cost of custom development, or with one too many missed deadlines or busted budgets. It may have started with the onset of ERP systems that established best practices for the entire organization. It may have happened when companies realized that they had outsourced so much of their IT operations that they no longer had competent development staffs.

Regardless of the origins of this change, the state of the art today is that users must bend their requirements to conform to off-the-shelf packages. The result: In his controversial article in *Harvard Business Review* a few years back titled "IT Doesn't Matter," Nicholas G. Carr told us that because so many companies use identical software, IT no longer provides any competitive advantage (see "Get Over Yourself," May 12, 2003).

Isn't it ironic that the very systems that are promising great value to companies are causing IT to be less strategic? Is this really what business wants?

Misinformed business executives and timid CIOs have allowed these look-alike systems to proliferate. On the surface, it always appears easier to install an outside package and not have to deal with the problems associated with customized development. Cost overruns, missed deadlines and unfulfilled expectations are no fun. It's a lot easier to be wined and dined by the ERP vendors and be convinced that this is the best way to accomplish your objectives.

Unfortunately, IT doesn't do a good job of explaining to the business the shortcomings of these new systems, the hardships encountered when users really need IT to make a strategic change, or the true cost of supporting and implementing off-the-shelf software today and into the future. Ask any CIO about the cost of outside support for one of the major ERP systems.

But perhaps more important is the cost of opportunities lost by using software that everyone else uses. If you have custom software, you can usually accommodate a new requirement at a reasonable cost. With an off-the-shelf package, this is often impossible. If a strategic initiative can't be accomplished because of the shortcomings of the packaged system, then the cost could be incalculable. This is the true cost of off-the-shelf. You must learn to use the software the same way most everyone else uses it.

I wonder if Dell could have developed its logistics system under this type of constraint. I wonder if FedEx and UPS could have revolutionized the shipping industry when faced with this type of scenario. I wonder if Cemex in Mexico could have become a high-tech cement producer using this approach.

Call me old-fashioned, but I think that there are still opportunities for companies to differentiate themselves through creative approaches to the marketplace that require the development of innovative IT systems. Perhaps, for example, Web services will enable companies to develop a much more customized software suite than is currently available through local installations of packaged enterprise systems. By skillfully interfacing some disparate elements, a creative CIO may be able to achieve some competitive advantage.

This opportunity may already be lost, however. The significant outsourcing and offshoring that companies are doing may deprive us of the talent needed to customize a Web services system or develop unusual systems.

Perhaps the dire predictions of the demise of internal IT have scared off the good developers. Perhaps Carr's thesis has become self-fulfilling, and IT is destined to subside to the role of a utility.

I'm reminded of the story about the head of the U.S. Patent and Trademark Office who submitted his resignation in 1899 because "everything that can be invented has been invented." Although probably apocryphal, it does serve to emphasize the danger of second-guessing the innovative mind.

I think IT has a great opportunity to bring new and exciting ideas to business that will enable companies to develop innovative processes and products. I think our brightest days are still ahead of us.

But we can't be afraid, and we must be able to do some customized development that will give our companies that elusive competitive advantage.

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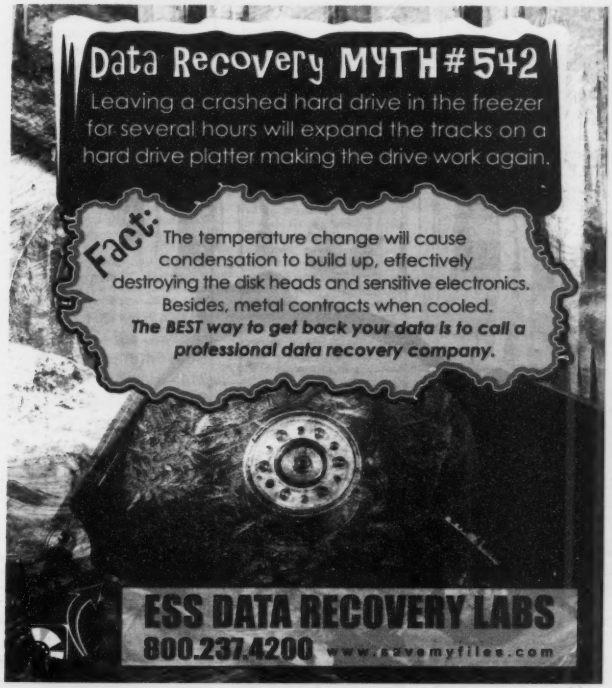
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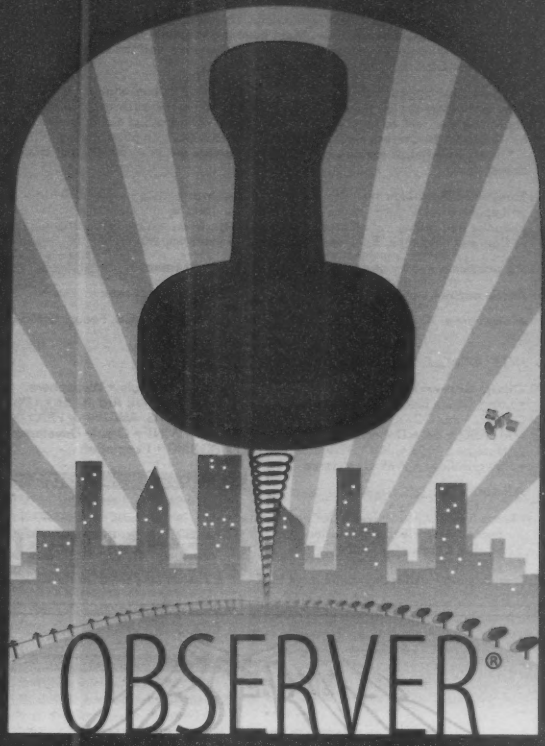

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Visa Gives Some Merchants Added Compliance Measures

Says about 1,000 businesses must meet stiffer guidelines on security readiness

BY JAIKUMAR VIJAYAN

VISA U.S.A. INC. has changed the way it classifies some merchants under the Payment Card Industry data security program, a move that will require about 1,000 retailers and other businesses to meet more-rigorous standards for validating their compliance with the PCI edicts.

The changes, which were announced July 21, affect a group of Visa's so-called Level 4 merchants that process between 1 million and 6 million credit card transactions annually. They are being shifted to the Level 2 category as part of a bid by Visa to tighten security requirements for a broader set of merchants.

Attracting Attention

Under the PCI program, Level 2 merchants must submit to quarterly network vulnerability scans and fill out a 75-question self-assessment form each year. Similar measures are recommended but not required for Level 4 merchants.

As a result, merchants in that category have rarely paid attention to the recommendations, said David Taylor, vice president of data security strategies at Protegrity Corp., a Stamford, Conn.-based company that offers PCI compliance services. "Some small and midsize businesses have never taken PCI seriously, and they should," Taylor said. "So this is a good thing."

"When it's just a recommendation, people give it less credence," agreed Robin Hogan, a product manager at Consul Risk Management Inc., a security auditing company in Herndon, Va. "This makes sure that people are doing what they're supposed to do."

Also as part of Visa's reclassification, about 1,000 merchants that solely do business online and process fewer than 1 million transactions annually will move from Level 2 to Level 3 status; both have similar requirements for compliance validation.

In a statement, Visa said it decided that the revised placement of merchants "would be more straightforward." Level 2 now will include all entities processing between 1 million and 6 million transactions per year, the company said, while Level 3 will be for e-commerce merchants that process 20,000 to 1 million transactions. Level 4 will consist of smaller e-commerce merchants and brick-and-mortar businesses that process fewer than 1 million transactions annually.

Chris Farrow, director of the Center for Policy and Compliance at Colorado Springs-based security vendor Configuresoft Inc., said that shifting from Level 2 to Level 3 isn't a major concern for merchants because their compliance requirements are nearly identical. But businesses moving from Level 4 to Level 2 face a "huge change," Farrow said. "They are the guys who are going to have to scramble."

The merchants being moved to Level 2 have until Sept. 30, 2007, to show compliance with the stiffer requirements. Merchants that claim to be PCI-compliant can be hit with hefty fines by Visa if they experience security breaches because of a lack of proper controls. ▸

Continued from page 1

Banks

it gave us a deadline," he said.

Earlier this month, the company's Zions Bank unit added a multifactor authentication feature called SecurEntry for users of its online banking services. Woods said SecurEntry is based on technology from RSA Security Inc. and allows Zions Bank to better authenticate users to its Web site and ensure that they know they're connected to a legitimate site.

The technology works by profiling the devices that customers typically use to log into the bank's online systems. Whenever there are changes, such as when a customer logs in from a new location or using a different system, SecurEntry challenges the user with specific questions that only he should be able to answer, Woods said. He added that the bank views the process as being minimally disruptive to users.

Desert Schools Federal Credit Union in Phoenix is using a similar authentication approach based on technology from Santa Clara, Calif.-based Bharosa Inc. to meet the FFIEC's guidelines. And like Zions, the credit union was already working toward multifactor authentication when the guidelines were released.

"It kind of moved things up for us," CIO Ron Amstutz said, adding that he thought the FFIEC was quite clear on what it wants banks to do.

The FFIEC's decision to not specify the use of any authentication methods may have caused some confusion early on, said Eric Bangerter, director of Internet services at the University of Wisconsin Credit Union in Madison. But, he added, it has allowed banks to choose the technologies that are best suited to their needs.

"I think it's a good thing, because it gives you flexibility," Bangerter said. He also began investigating strong authentication approaches before the guidelines were issued. Now the credit union has deployed technology from Reston, Va.-based Corillian Corp. that lets it profile users' systems and their online behavior and then challenge them to provide extra credentials if there is a change from the norm.

Addressing Audit Angst

The FFIEC is an interagency body set up to develop standards for the auditing of financial institutions. Although the council isn't mandating compliance with the authentication guidelines, it has said that banks will be audited against them starting next year.

Gartner Inc. analyst Avivah Litan estimated that no more than 20% of U.S. banks are in compliance now. "Many banks didn't take this very seriously early on," she said. "The usual questions I was getting were, 'How serious is this?' and 'What do the regulators want?' "

Litan added, though, that much of the confusion appears to be dissipating as the deadline gets closer and more banks begin to complete their risk assessments and figure out what kinds of strengthened authentication approaches they should take.

Many banks have contacted federal regulators to make sure the strong authentication measures they plan to implement will meet the FFIEC's guidelines, said Chris Young, senior vice president of RSA's consumer solutions division. "I don't, at this point, see a lot of head-scratching around what the best approach needs to be," he added.

But Jonathan Eber, a senior product manager at P&H Solutions Inc. in Boston, said he's still seeing a spectrum of attitudes toward the FFIEC guidelines. P&H sells software and services for linking banks with corporate customers.

About 35% of the banks that the company works with have "a sense of urgency about this," Eber said. "There is a middle part of the bell curve where people say, 'I know I have to do it, but I'll be in compliance by Q1 or Q2 of next year.' And there are some who say, 'This doesn't apply to me at all.' " ▸

Government Orders

FFIEC guidelines on authenticating online banking users offer the following advice:

- Using single-factor authentication only is inadequate for transactions involving access to customer data or electronic transfers of funds.
- Multifactor authentication, layered security and other reasonable controls are needed to mitigate security risks.
- Decisions on adopting an authentication approach need to be based on risk assessments of a bank's Web systems.
- Risk evaluations must be based on the type of customer, the type and number of transactions permitted, and the sensitivity of data.

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FRANK HAYES ■ FRANKLY SPEAKING

Data Takes a Holiday

IT'S TIME TO THINK ABOUT VACATION. No, not *your* vacation — the vacations of your users. According to a recent study by Opinion Research Corp., 43% of U.S. employees now spend part of their vacations doing office-related work. That's up from 23% a decade ago. Back then, the piece of technology users found most useful for working when they should have been playing was the cell phone, followed by the beeper and the fax machine.

Today, it's the laptop. And that should send a chill up your spine no matter how hot it's getting this summer.

After all, cell phones — which are still the second-favorite technology for working vacationers — are a security problem mainly because it's easy for eavesdroppers to overhear sensitive business information when it's delivered in that cell-phone bellow that some people can't seem to avoid using.

But that's nothing compared with the laptop problem. Laptops are more expensive than cell phones and easier to resell, so they're targeted by thieves in airports, hotels and other places where vacationers throng.

Laptops are also much more likely than cell phones to be stuffed with large quantities of sensitive corporate data. The fact that users don't actually *need* that data during a week at the beach won't prevent them from taking it along. Wiping it for a week and restoring it later just involves too much effort.

And with so many more users taking work with them on vacation — and taking along their laptops to do that work — IT has a problem.

What can you do about it? There's at least one obvious answer: Outlaw company laptops on vacation.

Obvious, sure — and worse than useless. It won't work, and it'll irritate users. Some will ignore your demand and schlep their laptops along regardless, complaining all the while about how clueless IT is when it comes to business needs. Others *will* leave their laptops at home — and then use unsecured PCs at hotel business centers, taking along their data on easy-to-lose thumb drives. Some big improvement, huh?

Don't fight the trend. Go with it. *Require* laptops for users who want to do work on vacation.

How? By making your network available only through a virtual private network. No VPN? No access to e-mail, corporate applications or business data.

Think about it: A VPN requirement cuts out hotel PCs, thumb drives and oddball mobile devices. It also lets you make sure every laptop with your VPN client software also has a firewall and virus protection. (Don't be stingy if a user wants to take along his own laptop. Giving away a little software is cheap insurance, and if it keeps users happy and safe, it's worth the price.)

Of course, you'll want to remind users that they'll need laptops with VPN software to read their e-mail. That's also a chance to hammer home for them the golden rule of laptop security: Guard that laptop like it's covered with $100 bills. Once they get that one down, all the other security tips — don't check it as luggage, don't put it in an airplane seat pocket, never leave it anywhere it's not under lock and key — are easy to remember.

Want to be even more proactive? If HR will cooperate, check with users scheduled for vacation ahead of time. Then, when they return, check back with them to ask how well the VPN and applications worked.

That's also an opportunity to make sure they haven't lost their laptops. Don't laugh — in some recent high-profile cases of lost or stolen laptops, users have waited weeks before reporting the machines missing. And remember, you won't know a user's personal laptop is missing unless you ask. So ask.

Yes, it's a little late to create a VPN requirement for this summer's vacations. But it's not too early to be thinking about next year.

Because your users won't quit working when they take their vacations, and they won't stop taking their laptops along. All you can do is try to make sure they don't turn every vacation time into a very long, hot summer. ◗

FRANK HAYES, *Computerworld*'s senior news columnist, has covered IT for more than 20 years. Contact him at **frank_hayes@computerworld.com.**

Oh, *That* Little Detail!

At this bank, IT tries to troubleshoot problems in remote branches over the phone. But when a router goes down and employees at the branch can't seem to get it working no matter how many procedures they're walked through, pilot fish has a tech make the hour-plus trek. "On arriving, the tech found the router in a janitor's closet that was drenched with water from recent rain," says fish. "On the floor there was an inch of water that the UPS sat in, and he actually poured water out of the router. It was amazing that no one got electrocuted – and even more amazing that no one had found water-drenched machines worthy of mention during troubleshooting."

That's Life

Manager complains to pilot fish that "my Internet is broken," so fish stops by his cube. "He wants to know why he can't find archery supplies on the Internet," says fish. "I give him a stern look – this is on company time – and look at the search window, where the phrase 'archy supplyies' is in the input box. I tell him it helps if you get the spelling correct. He replies, 'C'mon man, you know I'm not good with computers.' Just then a co-worker pipes up to say, 'Fred, that isn't a computer skill – that's a life skill!' "

SHARK TANK

see how to fix a 'broken' monitor, I refrained from embarrassing her in front of our co-workers. While she was distracted, I moved the keyboard, and her monitor was fixed. Amazed, she asked how I did it, to which I replied, 'Sometimes you just get lucky with these things.' "

That's Luck

Pilot fish gets a call about a user's PC monitor that keeps flashing the "power-saving mode" message, and he figures it must be a sign of a dying video card. "Instead, I discovered the corner of her keyboard pressed up against the power button of her flat-panel monitor," says fish. "Though I wanted to call everyone over to

That's the Phone Company

Network admin pilot fish cancels voice and data services from a major telecom vendor. "For the next few months, we get the usual increasingly smaller bills as they squeeze every last penny out of us," says fish. "Finally, they send us a credit for paid services that were not delivered after the contract was canceled. Think that's the last we hear from them? This month we get a bill with every item and category showing zero units and zero costs – with a notice in large letters, 'NO CURRENT BALANCE – DO NOT PAY.' Glad I saw that before getting out the checkbook."

GET OUT YOUR BEST true tale of IT life and send it to me at **sharky@computerworld.com.** You'll snag a snazzy Shark shirt if I use it. And check out Sharky's blog, browse the Sharkives and sign up for Shark Tank home delivery at **computerworld.com/sharky.**

_INFRASTRUCTURE LOG
_DAY 15: Our network's too complex to manage. We're not proactive at all; we're just reacting. Help!
_Gil brought in a crystal ball. Says he can now peer into the future of our infrastructure.
_DAY 17: I see a better way: IBM Tivoli middleware. It gives us a holistic view of the infrastructure and analyzes the relationship between apps, systems and networks. Fixes problems proactively for more uptime and more storage availability. Plus, it's open, modular and scalable.
_Gil says he saw all that too but forgot to tell us.
IBM
Tivoli.
Better manage the business of I.T. at:
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WebSphere

_INFRASTRUCTURE LOG

_DAY 18: Came to work and found everything frozen. Icicles are everywhere. It's our processes. They're inflexible. Hard coded so we can't respond to change.

_Why did we lock ourselves in like this? Brrrr.

_DAY 19: A way out. IBM WebSphere middleware for Business Process Management. It lets us streamline business tasks and optimize performance. We can simulate and test our processes so we understand the impact they'll have, then monitor performance once they're deployed. And because it's based on a service oriented architecture, it's easy to reuse and connect existing process-based services.

_Everything's unfrozen now. Wow, it's good to feel my toes again.

Take the BPM with SOA Assessment at:

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_INFRASTRUCTURE LOG
_DAY 12: No one can get real-time answers. No one can collaborate. Unmanaged public IM is a security nightmare.
_Gil brought in a "collaboration accelerator." I said it looks like a cannon. He said I had a small mind.
_DAY 14: The answer: IBM Lotus® Sametime® 7.5. It's not just IM and Web conferencing, it's an affordable platform for running the business in real time. It's encrypted. Has tons of features like VoIP and location awareness. And it works seamlessly with leading public IM networks. Everyone has real-time answers now.
_We've even recovered most of our employees.
Lotus.
Download the Lotus Sametime 7.5 demo at:
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